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1916

STATE DOCUMENTS

EIGHTH BIENNIAL REPORT

OF THE

State Board of Health

OF

MONTANA

FIFTH BIENNIAL REPORT

OF THE

State Registrar of Births and Deaths

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1915-1916

W. F. Cogswell, M. D., *Secretary*

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W. F. Cogswell, M. D., *Secretary*

INDEPENDENT PUBLISHING CO.
HELENA, MONTANA

MEMBERSHIP OF THE MONTANA STATE BOARD OF HEALTH.

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W. F. COGSWELL, M. D., Secretary, Helena.

DEPARTMENT OF PUBLIC HEALTH OF THE STATE OF MONTANA.

OFFICE OF THE SECRETARY,
Helena, Montana, December 31, 1916.

Hon. Samuel V. Stewart, Governor,
Helena, Montana.

Sir:

In compliance with the provisions of the laws of the State of Montana, I hand you herewith the Eighth Biennial Report of the State Board of Health, and the Fifth Biennial Report of the State Registrar of Births and Deaths.

The delay in the transmission of this Report is due to the recent fire which destroyed the Water and Food Laboratory at Bozeman and delayed the laboratory report.

I wish to express my appreciation of the hearty support given me by yourself and other members of the State Board of Health.

Respectfully submitted,

W. F. COGSWELL,
Secretary.

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RECOMMENDATIONS

Local and County Health Officers.

I wish again to call your attention to the unsatisfactory method of appointing local and county health officers, and to recommend an amendment to the present law whereby two adjoining counties may be permitted to unite in the employment of a whole time district health officer. This appointment should be for a term of at least four years, and should be made from a list of physicians furnished by the State Board of Health.

Child Welfare Division.

A Child Welfare Division to the State Board of Health should be created. This Division, in addition to other work, should have general supervision over the work of the school nurses and public health nurses in the state.

Such a Division could be maintained without a direct appropriation from the State, by a marriage license fee. The argument in favor of such fees being used to support this Division, being that when parties enter the marriage relation, they should make some provision for the protection of the health of the children resulting from such marriage.

Licenses.

In accord with the provisions of the Food and Drug Law, the State Board of Health issues licenses to bakeries, confectioneries, slaughterhouses, meat markets, dairies, restaurants, hotels, lunch counters, and dining cars in the State. These licenses are issued free to any person applying for them irrespective of the sanitary conditions surrounding the place of business.

The Secretary of the State Board of Health should be given authority to with-hold a license when he has satisfactory evidence of grossly insanitary conditions existing on the premises of parties applying for a license.

Instead of these licenses being issued free, a fee of Two Dollars should be charged and the money so collected could be profitably used in establishing and maintaining a well-equipped and efficient bacteriological laboratory.

On account of the largeness of this State it is almost impossible for one laboratory to properly serve all parts of the State. A very great impetus to public health work would be given if the State would render financial aid to municipalities in establishing bacteriological laboratories. The director of the central laboratory could have general supervision over the branch laboratories receiving State aid.

This arrangement could easily be brought about with the Two Dollars charged for the licenses issued by the State Board of Health.

Water Supplies.

The water supplied to the various towns of the State and used for drinking purposes on the passenger coaches on our railways should be regularly examined at our laboratory. In order that this may be done properly, the State Board of Health should be given authority to classify the various towns and companies and institute a fee system. Such fees should go towards bearing the expense of the work involved.

COMMUNICABLE DISEASES

Spotted Fever.

During the year 1915 there were thirty-seven cases of spotted fever reported in the State with eight deaths. For the first time in the history of the State, cases of this disease were reported from Big Horn. Custer, Dawson, Fallon and Rosebud Counties. In previous years some cases had been reported in Carbon County, but no cases had been reported in the State east of this county. The cases in the eastern part of the State were of the Idaho type and much milder than those occurring in the Bitter Root Valley.

During the year 1916 there were sixteen cases reported in the State with six deaths. Six of these cases occurred in the Bitter Root Valley; the others reported were in the eastern part of the State.

Dr. L. D. Fricks of the Public Health Service and Dr. W. V. King of the Bureau of Entomology had charge of the control work in the Bitter Root Valley. A full report of this work will be found in the Second Biennial Report of the State Board of Entomology.

Poliomyelitis (Infantile Paralysis).

During the year 1915 there were two cases of infantile paralysis reported in this State with one death. During the year 1916 there were eighty-eight cases reported, with twenty-one deaths. This would give a fatality of nearly twenty-four per cent. This does not include the cases that occurred on the Crow Reservation.

The only part of the State where this disease assumed an epidemic character was at Billings and in Carbon County bordering on the Crow Reservation. The first case reported in this section was on the Reservation. This case occurred on the 11th of July in a child twelve years old. This child died and was taken to Billings for burial. Shortly after this the epidemic started in Billings. In our investigation of the cases in Billings, we could not trace them directly or indirectly to the child that was brought from the Crow Reservation.

On account of the fact that the epidemic was confined to the part of the State bordering on the Crow Reservation, and that the first case occcurred on the Reservation, we were strongly suspicious that the disease existed on that Reservation, although denied by the authorities. On account of this suspicion we made an urgent appeal to the Public Health Service to make an investigation with a view to determining whether or not the disease existed within the limits of the Reservation.

Accordingly Dr. A. J. Lanza of the Public Health Service was detailed to make an investigation, and on August 14th this investigation was made by Dr. Lanza, Dr. T. J. Benson, local health officer of Fromberg, Dr. Gaylord McCoy, county health officer of Carbon County, and myself. At that time we found eight cases. A few days after this Dr. J. A. Murphy of the Indian Service made a further investigation and he reported eighteen cases in all.

In the report that was published in the Journal of the American Medical Association, Dr. Murphy very positively asserts that the disease on the Reservation was contracted from cases in Billings. In his report he overlooks the fact that the first case occurring in that section of the State occurred on the Reservation. Dr. Murphy's report is interesting, but it would be more valuable if it were accurate.

On the outbreak of the epidemic in Billings the Board of Health met and passed the following regulations in order to control the disease:

> "Reg. 1. Any local or county health officer having knowledge of, or having reason to suspect the presence of poliomyelitis (infantile paralysis) within his district shall immediately investigate, if necessary, and shall at once place under quarantine all persons found suffering from such disease. Patients suffering from poliomyelitis shall be effectively screened against flies, and all discharges from such patients shall be properly disposed of.
>
> "Reg. 2. Quarantine for poliomyelitis shall be absolute, and shall extend for a period of at least six weeks, and as much longer as the local or county health officer may deem necessary. On recovery or death of a patient, the house occupied by such patient shall be thoroughly fumigated and cleaned. All children exposed to poliomyelitis shall be quarantined for a period of not less than two weeks.

"Reg. 3. Funerals of persons dead of poliomyelitis shall be strictly private.

"Reg. 4. As soon as a diagnosis is made the attending physician shall report all cases of poliomyelitis by the quickest possible method to the local or county health officer within whose jurisdiction such cases occur. The local or county health officer shall report to the Secretary of the State Board of Health by wire or telephone as soon as any case of poliomyelitis is reported to him, or as soon as he, himself, has made such a diagnosis on any case he has attended.

"Reg. 5. When an epidemic of poliomyelitis occurs in any county of this State, the county board of health of such county shall employ, at the expense of said county, a duly trained and registered nurse as a public health nurse, who shall act in cooperation with the county health officer and under the direction of the State Board of Health."

Trachoma.

During the month of September, 1916, Dr. Ralph H. Ross, trachoma expert with the Indian Service, was detailed to make an examination of the school children on the Fort Peck Indian Reservation to determine the number of cases of trachoma.

Knowing that this disease was prevalent among the Indians on this reservation, I requested Dr. Ross to examine the eyes of the school children in the towns of Sheridan County bordering upon the Reservation.

During the month of October he made the examination, as requested, and has reported as follows:

"October 30, 1916.

"Dr. W. F. Cogswell, Secretary,
"Department of Public Health,
"Helena, Montana.

"Dear Doctor:

"I have just returned from visiting seven towns adjacent to Fort Peck Indian Reservation in Sheridan County, they were Medicine Lake, Homestead, Froid, Antelope, Plentywood, Flaxville and Scobey. I found 720 pupils in the public schools of these towns, 30 of which were Indians. In the public schools of Poplar and Wolf Point I found 302 pupils, making a total of 1,022 pupils, that I examined for eye diseases in Sheridan County. Enclosed you will find a report of each town giving the diseased eye conditions found in the pupils named. I found 20 cases of trachoma and 40 cases of follicular conjunctivitis.

"Yours very truly,
"Ralph H. Ross,
"Special Physician."

On account of the prevalence of trachoma and follicular conjunctivitis in the towns mentioned, I believe that the County Commissioners of Sheridan County should employ a county nurse to treat these cases under the direction of a local physician.

Typhoid Fever.

During the year 1915 there were 537 cases of typhoid fever reported with 57 deaths. During the first eleven months of 1916 there were 395 cases with 45 deaths. While it is no doubt a fact that there are some cases of typhoid fever that are never reported, yet we feel that we are getting more complete reports of this disease than ever before. The diminished number of cases is no doubt due to the fact that in several towns of the State water treatment plants have been installed.

During the year 1916 there were quite a number of cases reported from Great Falls. This City, at that time, was using raw Missouri River water, which at times showed evidence of contamination. The State Board of Health in the summer of 1915 issued an order to the City of Great Falls to install a treatment plant and recommended that steps be taken to install a filtration plant with treatment. A temporary hypochlorite plant was immediately installed. which was later replaced by a liquid chlorine plant. The question of bonding the City for installing a filtration plant was submitted to the people and carried by a substantial majority. Plans for this plant have been submitted to the State Board of Health and have been approved. The plant is now under construction.

The town of Glendive secures its waters from the Yellowstone river at that place. The water from this river in the summer of 1915 showed contamination. The State Board of Health called the attention of the City authorities to this fact and, without waiting for an epidemic to occur, they immediately took steps to put in a proper filtration and treatment plant. This plant is now in the course of construction.

In another part of this report will be shown the number of towns that have improved their water supply by proper treatment.

Smallpox.

During the year 1915 there were 546 cases of smallpox with one death. During the first eleven months of 1916 there were 540 cases with one death.

On account of the extreme mildness of this disease people are losing their respect for it and are neglecting vaccination. This is unfortunate, for the time will undoubtedly come when a more virulent form of the disease will appear and will find good soil for its spread in an unvaccinated generation. In several places in the State on the appearance of smallpox, the State Board of Health has issued orders for the school children to be vaccinated. The Board has this authority in the presence of an epidemic. Otherwise there is no law requiring the vaccination of school children.

Diphtheria.

In 1915 there were 159 cases of diphtheria reported in the State with 17 deaths. During the first eleven months of 1916 there were 209 cases, with 19 deaths.

In two towns in the State epidemics of diphtheria amongst the school children were traced to carriers in healthy children. As soon as these carriers were put under control the epidemics in both places ceased.

Scarlet Fever.

During the year 1915 there were 376 cases of scarlet fever reported, with 12 deaths. During the first eleven months of 1916 there were 362 cases with 8 deaths, the total number of cases reported for the biennial period being 738 with 20 deaths. This is a much better showing than that of the previous biennial period, which showed 1,365 cases with 107 deaths.

Tuberculosis.

During the year 1915 there were 444 deaths from tuberculosis in Montana, and during the same period there were only 200 cases of this disease reported. The first eleven months of 1916 there were 363 deaths and only 281 cases reported. It is very evident that we are not getting a complete report of the cases of this disease. An effort will be made during the coming year to get better reports.

The law requires that the attending physician, as soon as diagnosis is made, report his cases of tuberculosis to the local or county health officer. In order that some follow-up work may be done on this disease, there should be employed in each County a public health nurse, working under the direct supervision of the County Health Officer, and in accord with the rules and regulation of the State Board of Health. This nurse would be very valuable in preventing the spread of tuberculosis by going into the homes of the tubercular and instructing them how best to prevent the spread of the disease.

During the past year Dr. A. J. Lanza of the United States Public Health Service, has been making an investigation of the sanitary conditions in the mines at Butte, with special reference to the spread of tuberculosis amongst miners. The Doctor has not confined himself to purely investigational work, but has aided very materially in organizing the local relief agencies, working with the State and Anti-Tuberculosis Associations. A tuberculosis clinic has been established, which at the present time is being conducted by Dr. Lanza.

The State Anti-Tuberculosis Association, which was organized in the summer of 1916, is showing signs of valuable activity, and is cooperating with the State Board of Health in control measures. A great many people in the State are of the opinion that we have very little tuberculosis in Montana, but we have only to turn to our death records to disprove this idea.

BACTERIOLOGICAL LABORATORY

The following table shows the amount of work done in the Bacteriological Laboratory during 1915 and 1916.

1915.	Widal	Diph.	Tbc.	Other	Total for Month
January	38	24	14	....	76
February	51	14	12	....	77
March	40	8	16	2	66
April	51	12	17	1	81
May	42	7	13	....	62
June	35	13	13	1	62
July	31	9	18	....	58
August	62	8	23	....	93
September	73	....	15	....	88
October	49	6	16	....	71
November	52	....	19	....	71
December	36	5	17	....	58
Total	560	106	193	4	863

1916	Widal	Diph.	Tbc.	Total for Month
January	24	12	12	48
February	54	3	13	70
March	42	10	20	72
April	51	33	14	98
May	36	13	19	68
June	36	5	14	55
July	56	34	19	109
August	65	11	6	82
September	71	11	25	107
October	72	66	11	149
November	23	100	13	136
December	....	....	....	....
Total	530	298	166	994

WATER AND SEWER SYSTEMS.

Section 1653 of the Revised Codes of Montana reads in part as follows:

> "Cities, towns and all other corporations, companies or persons shall submit to said Board for its advice and approval their proposed system of water supply or of the disposal of drainage or sewerage, and no ctiy, town or persons or company shall proceed to build or install or enlarge or extend any system of water supply, drainage or sewerage disposal, without first obtaining the approval of the State Board of Health. In this Section the term 'drainage' means rainfall, surface and subsoil water only, and 'sewage, means domestic and manufacturing filth and waste."

In accordance with this provision of the law the following plans for water and sewer systems from the following towns have been received and approved:

Big Timber, Sanitary Sewer System, October 12, 1916
Broadview, Water System. May 19, 1916.
Bozeman, Sanitary Sewer System, May 16, 1916.
Bozeman, Storm Sewer System, May 1, 1916.
Belgrade. Sewer System, August 24, 1916.
Clyde Park, Water System. March 29, 1915.
Chinook, Filtration Plant, October 4, 1915.
Columbus, Water Works & Filtration Plant. October 27, 1915.
Columbus, Sewer District No. 1, May 17, 1916.
Fromberg Water System, January 31, 1916.
Great Falls, Filtration Plant, June 26, 1916.
Geraldine, Sewer System, June, 1915.
Glendive, Filtration and Treating Plant. August 4, 1916.
Harlowton, Water Works & Sewer System, Aug. 30, 1916.
Havre, Sewer System, July 17, 1915.
Hysham Water System, November 1, 1915.
Hardin, Sanitary Sewer System, October 12, 1916.
Hinsdale, Sewer System, November 18, 1916.
Judith Gap, Water & Sewer System. October 26, 1915.
Lavina, Sewer System, April 4, 1915.
Manhattan, Sewer System, April 2, 1916.
Medicine Lake. Water System, August 17, 1915.
Polson, Sewer System, July 26, 1915.

Polson, Sewer District No. 2, February 28, 1916.
Ryegate, Water System, October 4, 1915.
Sidney, Water & Sewer System, August 18, 1915.
Sheridan, Municipal Water Works, October, 1916.
Three Forks, Water Works System, August, 1916.
Troy, Water Works System, November 18, 1916.
Wibaux, Water & Sewer System, August 31, 1916.

School Buildings.

The law requires that the plans for new school buildings shall be submitted to the State Board of Health for its approval. In accord with the provisions of this law, the number of plans submitted are as follows:

From January 1, 1915 to December 31, 1915.

Plans examined, approved and filed	39
Rurral school plans examined and approved	53
Blue prints furnished to rural districts	195
Total	287

From January 1, 1916 to October 31, 1916.

Plans examined, approved and filed	51
Rural school plans examined and approved	86
Blue prints furnished to rural schools	132
Total	269

LICENSED EMBALMERS.

One of the duties of the State Board of Health is to examine candidates for embalmers' licenses. In order to make this examination as practical as possible, the State Board of Health appointed E. L. Flaherty of Helena and James Cassidy of Butte, licensed embalmers, to act with the Secretary in conducting these examination. The regular examinations are held in April and October.

During the past biennial period thirty-eight licenses have been issued by examination and nineteen by reciprocity. Montana reciprocates with Iowa, North Dakota, Colorado, Washington, Wisconsin, Nebraska, Idaho. Minnesota, Ohio, Louisiana and Kansas.

DEATHS (EXCLUSIVE OF STILLBIRTHS) REPORTED TO THE STATE 1915. ARRANGED ACCORDING TO COUNTIES,

TABLE NO. 1.

JANUARY

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead					1													
Big Horn																		
Blaine																		
Broadwater																		
Carbon					1						2		1					
Cascade Excl. of					2		2		4	1								
Great Falls					2	4			7		1		1					
Chouteau					1													
Custer						2		1										
Dawson														1	1			
Deer Lge. Excl of					3													
Anaconda					1	2									1			
Fallon																		
Fergus			1		1								2					
Flathead Excl. of					1	1												
Kalispell					1													
Gallatin Excl. of														1				
Bozeman					1													
Granite																		
Hill					1	2												
Jefferson													1					
Lewis & C. Excl. of																		
Helena						1		1								2		
Lincoln																		
Madison																		
Meagher																1		
Mineral																		
Missoula Excl. of						2												
Missoula City					1			1										
Musselshell																		
Park Excl. of																		
Livingston					1					2								
Phillips																		
Powell																		
Prairie																		
Ravalli					2													
Richland																		
Rosebud							1											
Sanders																		
Sheridan						4		1										
Silver Bow Excl. of					5	8			1									
Butte					9	9	1	1						1	2			
Stillwater						1												
Sweet Grass																		
Teton						1								1	1			
Toole						1												
Valley						2								1				
Wibaux																		
Yellowstone Excl of						1												
Billings							1				1				1			
TOTALS	..	..	1	..	34	41	5	5	12	3	4	...	5	5	6	3	...	...

BOARD OF HEALTH FOR THE TWO YEARS ENDING DECEMBER 31, PRINCIPAL CITIES, AND PRINCIPAL CAUSES.

TABLE NO. 1.

JANUARY

Whooping Cough........		Pneumonia............		Nephritis............		Organic Heart Disease....		Malignant Tumors........		Acute Intestinal Diseases.		Violence............		Suicide............		Alcoholism............		All Other Causes..........		Totals............	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	2	2	6
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	1	...	...	...	1	1	...	...	...	...	...	1	...	1	1	...	1	3	4	6
...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	2
...	...	4	2	...	...	1	...	...	...	...	2	1	...	1	...	...	...	4	...	15	4
...	...	2	1	...	...	1	1	...	1	...	...	2	...	...	...	...	...	...	6	13	10
...	...	7	5	3	4	1	...	2	4	...	1	4	2	...	...	1	...	12	5	41	25
...	...	1	3	...	...	...	...	...	...	...	...	1	2	...	...	...	...	1	2	4	7
...	...	1	1	...	3	...	1	1	1	...	...	4	...	...	...	1	...	3	3	10	12
...	...	3	6	3	...	3	2	1	1	...	...	...	1	...	...	...	...	4	5	15	16
...	...	1	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	4	2	10	4
...	...	5	2	...	2	1	...	...	...	...	...	...	...	1	1	...	...	5	6	14	13
...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	1
...	...	2	4	2	...	1	2	...	...	...	...	1	1	...	...	...	...	3	6	13	13
...	...	1	2	...	1	...	2	...	...	...	...	2	3	...	...	...	...	2	...	6	9
...	...	2	1	...	...	...	1	...	3	...	1	...	...	...	...	...	...	1	2	4	8
...	...	...	4	...	...	...	...	...	...	...	...	...	1	1	...	...	...	2	10	3	16
...	...	...	...	1	1	...	1	1	...	...	...	...	...	1	...	...	...	2	4	6	6
...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	1	...	1	3	2	4	5
...	...	...	5	1	1	...	3	...	1	...	...	3	...	...	...	...	...	6	4	11	16
...	...	...	2	...	...	1	...	...	...	...	...	1	...	...	...	...	...	2	3	5	5
...	...	...	1	1	...	2	...	...	...	...	...	2	...	...	...	1	...	1	3	7	4
...	...	4	3	1	3	2	4	1	3	...	...	1	1	...	...	...	...	4	11	13	29
...	...	...	...	1	...	...	1	...	...	...	...	...	1	...	...	...	...	...	2	1	4
...	...	2	1	...	1	...	1	...	1	...	...	...	...	...	1	...	...	4	2	6	7
...	...	3	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	5	4	9	6
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
...	...	1	1	...	1	...	...	1	1	...	...	1	...	...	...	...	...	1	5	4	10
...	...	1	2	2	2	1	3	1	1	...	...	1	...	1	...	1	...	5	9	14	18
...	...	...	4	1	1	1	1	...	...	...	...	1	1	...	...	...	...	1	4	4	11
...	...	...	1	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	1	1	4
...	...	...	1	...	1	1	1	...	...	...	...	...	...	...	...	...	...	2	4	4	9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	...	2	1	1	1	...	...	...	...	...	...	...	...	...	...	1	1	5	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	1	1	...	2	1	3	1	...	...	...	...	1	...	...	...	3	5	13	8
...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	4	...	7
...	...	1	1	1	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	4	3
...	...	...	...	...	...	1	...	...	...	...	...	2	1	...	1	...	...	...	2	3	4
...	...	...	...	...	1	3	2	...	...	...	1	1	1	...	...	...	...	2	3	6	13
...	...	1	2	...	...	2	3	1	2	1	...	3	2	...	...	1	...	2	5	17	22
...	...	14	10	2	9	9	8	2	...	1	...	3	4	...	1	3	...	38	24	89	67
...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
...	...	...	...	1	1	...	3	...	...	...	...	...	1	...	...	...	...	...	...	1	5
...	...	2	4	...	...	1	2	...	1	1	...	1	1	...	...	1	...	2	2	9	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	1	...	...	4	2	...	...	...	...	...	...	...	...	...	...	...	3	4	9
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
...	...	3	5	1	...	2	...	...	...	...	...	2	1	...	...	...	...	4	3	12	10
1	...	3	4	...	1	1	2	2	...	...	...	...	...	...	...	...	...	4	8	14	15
1	...	70	39	24	35	46	52	16	22	3	7	44	29	7	8	10	1	137	171	425	471

TABLE NO. 1—Continued.

FEBRUARY

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Broadwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Cascade Excl. of	..	..	..	..	...	1	...	...	...	1	...	...	...	...	...	...	...	...
Great Falls	..	..	..	..	4	1	...	...	...	...	...	...	1	...	...	1	...	...
Chouteau	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Custer	..	..	..	..	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Dawson	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Deer Lge. Excl of	..	..	..	..	4	2	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Fallon	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Flathead Excl. of	..	..	..	..	1	1	...	...	1	...	...	...	...	...	...	...	...	...
Kalispell	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gallatin Excl. of	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	1	...	...
Bozeman	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jefferson	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Helena	..	..	..	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Lincoln	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Madison	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meagher	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mineral	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	..	..	..	..	2	1	...	...	...	...	...	...	...	...	...	...	...	...
Musselshell	..	..	..	..	2	...	1	...	...	...	...	...	...	...	...	...	...	...
Park Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phillips	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Richland	..	..	..	..	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Sanders	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	...	1	...	1	...	...	...	...	...	...	...	...	...	...
Silver Bow Excl. of	..	..	1	..	5	6	...	...	...	...	...	...	...	...	...	...	...	..
Butte	..	..	..	..	9	3	...	...	...	...	...	...	...	1	2	...	...	...
Stillwater	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Sweet Grass	..	..	..	..	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Teton	..	..	..	..	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Toole	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Valley	..	..	..	..	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	2	2	...	1	...	...	1	...	...	1	1	...	...	...
Billings	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	..	..	1	..	35	29	2	3	1	1	3	...	2	4	5	2	...	...

TABLE NO. 1—Continued.

FEBRUARY

Whooping Cough........		Pneumonia..............		Nephritis...............		Organic Heart Disease....		Malignant Tumors........		Acute Intestinal Diseases.		Violence.................		Suicide..................		Alcoholism...............		All Other Causes..........		Totals..................	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	....	3
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	....	1
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	5	1
...	...	1	1	1	...	1	...	...	...	...	...	3	...	...	...	...	...	1	....	7	1
...	...	5	1	...	1	...	1	1	...	1	1	...	2	...	...	...	1	4	8	13	15
...	...	1	2	...	1	...	1	2	...	1	...	...	2	...	...	...	...	2	5	6	13
...	...	6	3	1	2	6	2	1	1	1	1	3	1	...	...	...	...	23	12	46	24
...	...	1	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	....	1	3	3
...	...	...	3	...	2	3	1	2	...	...	...	...	...	...	...	...	...	4	6	10	13
1	...	2	...	...	...	4	...	1	1	1	...	1	1	...	1	...	...	5	5	15	9
...	...	4	1	...	...	2	...	...	...	...	...	2	...	...	...	...	...	5	8	17	11
...	...	3	1	1	...	...	2	2	...	...	2	3	3	...	...	...	...	6	7	15	17
...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	2	4	2
...	...	2	...	...	...	2	1	...	...	...	...	...	1	...	...	...	...	6	7	10	9
...	...	2	2	...	...	...	2	...	...	...	...	3	...	...	...	...	...	1	1	8	6
...	1	2	...	2	1	1	1	1	...	...	...	1	...	...	...	...	...	1	2	9	5
1	...	2	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	4	3	8	7
...	...	1	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	4	1	6	3
...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	1	...	...	....	....	3	2
...	...	3	4	...	...	1	...	1	1	...	...	...	...	...	...	...	...	3	4	8	9
...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	....	1	....	4
...	...	...	2	...	...	2	1	...	...	1	...	...	...	...	...	...	...	4	1	7	6
...	...	2	2	1	1	1	1	...	...	1	...	2	1	...	...	...	...	1	5	10	10
...	...	...	1	...	...	...	...	...	1	...	...	1	1	...	...	...	...	....	3	1	7
...	...	1	...	1	...	...	...	...	1	...	...	1	...	...	1	...	...	....	1	3	3
...	...	...	...	...	...	1	1	1	...	...	...	...	2	...	...	...	...	2	1	4	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	....	....	....	2
...	...	1	1	...	1	1	2	...	...	...	...	...	...	1	...	...	...	2	1	5	5
...	...	2	1	1	2	2	3	...	2	...	...	1	1	1	...	...	...	8	6	17	15
...	...	3	2	...	...	1	1	...	...	...	...	2	1	1	...	1	...	2	2	13	6
...	...	3	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	2	4	4
...	...	1	1	...	...	1	1	...	1	...	...	...	...	...	...	...	...	3	....	5	3
...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	...	...	...	....	....	....	3
...	...	2	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	3	2	6	4
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	....	2	....	3
...	...	...	1	...	...	3	1	1	...	...	...	...	1	...	...	...	...	2	3	6	6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	2	....	3
...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	2	5	2
...	...	...	3	...	...	1	...	...	...	...	...	...	1	...	...	...	...	....	....	1	4
...	...	...	1	...	...	1	2	1	...	1	...	...	...	...	...	...	...	3	2	6	7
1	...	6	3	3	1	3	1	2	1	...	...	2	7	1	...	...	...	6	4	30	23
...	...	6	15	1	2	9	5	1	3	1	2	8	4	1	...	1	1	18	16	57	52
...	...	...	1	...	3	2	1	...	...	...	...	...	1	...	...	...	...	....	2	2	9
...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	....	3	1
...	...	1	...	...	1	1	1	...	4	...	...	...	1	...	...	...	...	4	6	7	13
...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	....	1	....	3
...	...	1	...	...	...	...	1	...	...	...	...	...	1	1	...	1	...	2	....	6	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....	....
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	3	5	8
...	...	1	1	1	...	...	4	2	...	...	...	3	...	...	...	...	...	6	7	13	12
3	1	68	59	16	24	52	43	19	17	9	6	39	36	8	4	3	2	143	149	409	380

TABLE NO. 1—Continued.

MARCH

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	2	...	...	...	...	...	...	1	...	...	...	...	...
Broadwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	2	...	...	...	2	...	...	...	...	...	...	1	...	...
Cascade Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Great Falls	..	..	..	..	1	2	...	...	...	...	2	...	3	...	1	...	...	...
Chouteau	..	..	..	..	...	1	...	...	...	...	...	...	1	...	...	1	...	...
Custer	..	..	..	..	2	1	...	1	...	...	1	...	...	...	...	...	...	...
Dawson	..	..	..	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Deer Lge. Excl of	..	..	..	..	1	5	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Fallon	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	1	2	...	...	...	...	...	...	...	...	1	...	...	...
Flathead Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Kalispell	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gallatin Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bozeman	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	1	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jefferson	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Helena	..	..	..	..	1	1	...	...	...	...	...	...	...	1	1	...	...	...
Lincoln	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Madison	..	..	..	..	1	2	...	...	...	...	...	...	...	1	...	...	...	...
Meagher	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mineral	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	1	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Musselshell	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Park Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Phillips	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	1	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Richland	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sanders	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	1	4	...	...	...	...	...	...	...	...	...	...	...	...
Silver Bow Excl. of	..	..	..	1	9	3	...	...	...	...	...	...	...	...	...	...	...	...
Butte	..	..	..	..	13	8	...	...	1	...	...	...	...	...	5	1	...	...
Stillwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Teton	..	..	..	..	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Toole	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Valley	..	..	..	..	...	1	3	...	...	...	...	...	...	...	...	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	...	1	1	...	...	...	...	...	...	...	...	...	...	...
Billings	..	..	..	..	1	...	...	...	1	...	...	...	...	...	...	...	...	...
TOTALS	2	1	..	1	37	48	4	2	4	...	3	...	5	3	8	5	...	...

TABLE NO. 1—Continued.

MARCH

Whooping Cough		Pneumonia		Nephritis		Organic Heart Disease		Malignant Tumors		Acute Intestinal Diseases		Violence		Suicide		Alcoholism		All Other Causes		Totals	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	1	...	...	...	2	2	...	1	...	...	1	...	...	1	...	...	....	5	4	9
...	...	1	2	...	...	1	...	1	...	...	...	1	...	...	...	...	...	3	....	7	2
...	...	3	...	...	...	1	1	...	...	...	1	1	1	...	...	...	...	3	1	9	6
...	...	...	3	...	...	...	...	...	...	...	...	1	...	...	1	...	...	....	3	1	7
...	...	3	2	...	1	1	...	...	...	...	...	1	3	...	...	...	...	2	4	11	11
...	...	1	2	...	2	...	1	1	...	2	...	1	...	...	...	...	...	3	4	8	9
...	...	6	6	...	...	1	4	2	2	...	1	2	2	...	...	...	...	15	14	33	31
...	...	...	1	1	1	1	1	...	...	...	1	...	2	...	...	...	1	1	3	4	12
...	...	2	...	1	2	...	...	1	...	...	...	2	...	...	...	...	...	2	3	11	7
...	2	4	2	...	2	1	...	...	...	...	...	...	...	...	...	...	...	5	2	12	8
...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	...	...	...	4	9	7	15
...	...	1	1	...	2	4	...	...	...	...	...	1	...	...	...	...	1	6	5	12	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	2	....	2
...	...	2	1	2	1	2	1	2	...	...	...	1	3	...	...	...	...	6	11	17	19
...	...	1	1	...	...	1	1	...	1	...	...	2	1	1	...	...	...	4	7	9	12
...	...	...	2	1	...	2	2	1	...	...	...	...	2	...	1	...	...	1	7	6	14
...	...	1	3	...	...	...	...	...	...	1	...	...	1	...	...	...	...	2	8	4	12
...	...	...	1	...	2	...	1	...	2	...	...	...	...	...	...	...	...	2	4	2	10
												1	1	...	...	...	1	2	2	3	4
...	...	1	5	2	2	1	2	1	1	1	1	2	2	...	...	...	...	2	4	10	18
...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	....	1	1	4
...	...	...	...	1	1	1	2	1	...	...	...	...	...	...	...	...	...	1	7	4	10
...	...	1	5	3	4	3	3	2	...	1	...	...	1	1	...	...	...	7	5	20	20
...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1	...	...	1	2	3	4
...	...	1	...	...	...	2	...	...	...	...	...	...	1	...	...	...	...	2	4	6	8
...	...	...	1	...	...	2	...	...	...	...	...	1	...	...	...	...	...	....	....	3	1
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	....	....	....	1
...	...	...	3	...	...	...	1	...	1	...	...	2	1	...	...	...	...	1	1	3	10
...	...	1	2	...	1	4	...	1	3	...	2	1	2	...	...	...	...	6	7	14	18
...	...	4	3	...	1	...	1	...	...	...	...	1	2	1	...	...	...	1	3	7	12
...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1	...	...	....	3	1	5
...	...	...	...	1	2	...	1	...	...	...	...	...	...	...	...	...	...	2	2	3	6
...	...	...	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	....	1	....	7
...	...	...	1	...	...	1	1	1	...	1	...	...	...	1	...	...	...	2	....	7	2
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	2	....	3
...	...	1	2	...	...	...	...	1	2	...	...	1	1	...	...	...	...	4	7	8	12
...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	....	1	....	5
...	...	...	...	2	...	1	...	...	...	2	...	...	2	...	...	1	...	3	2	9	4
...	...	...	1	...	...	...	2	...	1	...	...	2	1	...	1	...	...	2	2	4	9
...	1	...	2	...	1	1	...	...	...	...	...	1	...	...	...	1	1	2	2	6	11
...	...	2	5	5	1	1	4	1	...	1	...	2	1	...	...	1	...	9	7	31	32
...	...	12	14	2	3	7	9	2	3	1	...	5	3	1	4	2	3	22	16	73	64
...	...	...	...	...	1	...	...	...	1	1	...	1	...	...	...	...	...	1	4	3	6
...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	3	....	4	2
...	1	...	2	...	1	2	1	...	...	...	...	2	...	...	...	...	...	7	3	11	9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....	1
...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	1	2	5	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	....	1
...	...	...	1	1	1	...	...	...	...	...	...	...	2	...	...	...	...	3	2	5	7
...	...	2	5	...	...	1	4	...	...	1	1	...	1	...	...	...	...	7	7	13	18
...	4	51	84	22	34	49	46	18	19	12	8	39	41	5	11	5	7	150	192	414	506

TABLE NO. 1—Continued.

APRIL

	Spotted Fever........		Smallpox........		Tuberculosis........		Diphtheria........		Scarlet Fever........		Measles........		Typhoid Fever........		Meningitis........		Anterior Poliomyelitis.....	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Broadwater	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Cascade Excl. of	..	..	..	..	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Great Falls	..	..	..	..	3	4	1	...	...	...	...	...	1	...	...	1	...	...
Chouteau	..	..	..	..	1	2	...	...	...	...	...	...	...	...	...	...	...	...
Custer	..	..	..	..	2	1	1	...	...	...	...	...	...	...	...	1	...	...
Dawson	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Deer Lge. Excl of	..	..	..	..	3	3	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Fallon	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	...	5	...	...	...	...	...	...	...	...	...	...	...	...
Flathead Excl. of	..	..	..	..	1	1	...	...	...	...	...	...	1	1	...	...	...	...
Kalispell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gallatin Excl. of	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Bozeman	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	..	..	..	5	...	...	...	...	...	...	...	2	...	...	...	...	...
Jefferson	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Lewis & C.Excl.of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Helena	..	..	..	..	...	2	...	...	...	...	...	...	...	...	1	...	...	...
Lincoln	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Madison	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Meagher	..	..	..	..	...	...	...	...	1	...	...	...	...	...	...	1	...	...
Mineral	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	1	..	..	..	2	1	...	...	...	...	...	...	...	...	...	...	...	...
Musselshell	..	..	..	..	1	1	...	...	...	...	...	...	...	...	1	...	...	...
Park Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Phillips	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Richland	..	..	..	..	...	1	...	1	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sanders	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	2	1	...	1	...	...	1	...	...	...	...	...	...	...
Silver Bow Excl.of	..	..	..	..	8	4	...	...	1	...	...	...	...	...	...	...	...	...
Butte	..	..	..	..	10	7	...	...	...	...	...	...	...	...	2	...	...	...
Stillwater	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Teton	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Toole	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Valley	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl.of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Billings	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	1	..	..	..	47	48	2	2	2	...	1	...	4	1	5	6	...	1

TABLE NO. 1—Continued.

APRIL

Whooping Cough		Pneumonia		Nephritis		Organic Heart Disease		Malignant Tumors		Acute Intestinal Diseases		Violence		Suicide		Alcoholism		All Other Causes		Totals	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	1	1	1	...	...	2	...	...	...	...	...	2	...	...	...	...	1	1	3	6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	1	1	2	3
...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1	2	4
...	...	3	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	2	1	8	2
...	...	3	2	1	...	1	...	...	...	...	...	2	4	...	...	...	...	3	1	12	7
...	...	6	4	...	1	3	3	...	1	...	...	4	1	...	...	...	...	13	12	31	27
...	...	1	...	...	...	...	...	1	...	...	1	2	1	...	...	...	...	2	1	7	5
...	...	2	1	1	...	2	1	1	...	1	...	1	...	...	...	1	...	4	5	16	9
...	...	...	2	...	...	1	...	...	...	...	...	1	2	...	...	...	...	5	2	8	7
...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	9	6	14	10
...	...	1	...	...	...	2	3	...	...	...	...	1	1	...	...	1	1	11	3	16	9
...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3
...	...	4	1	...	...	1	1	...	...	...	...	6	...	1	1	...	...	8	7	20	15
...	...	1	1	...	1	2	1	...	...	...	...	...	...	...	1	...	...	3	2	8	8
...	...	...	3	...	1	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	7
1	...	1	...	2	...	...	...	1	...	...	...	...	2	1	...	...	...	1	5	8	8
...	...	1	...	1	...	...	2	...	...	...	...	...	1	...	...	...	...	1	2	3	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2	2
...	...	1	1	1	...	2	2	...	...	1	...	1	1	...	...	...	...	7	8	20	12
...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	3	2
...	...	1	1	1	...	2	4	1	...	...	...	1	1	...	...	...	...	2	...	8	7
...	...	...	1	1	...	6	3	...	...	...	...	2	...	...	2	1	...	7	7	18	15
...	...	2	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	2	1	5	4
...	1	2	1	...	...	2	1	...	1	...	...	1	...	...	...	...	...	2	5	6	10
...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	[illegible]	
...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	..	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	1
...	...	3	...	2	1	5	1	1	1	1	1	...	2	...	1	...	1	3	7	18	16
...	...	...	2	...	1	1	...	...	1	...	1	3	...	...	...	...	...	4	3	10	9
...	...	...	1	...	...	...	...	1	...	...	1	2	1	...	...	...	...	1	1	4	4
...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	6	2	8	3
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3
...	...	...	...	2	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	4	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2
...	...	...	...	...	...	2	1	1	1	...	...	1	2	2	...	...	...	5	2	11	7
...	...	...	2	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	8
...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	1	...	...	1	3	2
...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	1	...	...	...	4	1
...	...	1	3	...	...	...	...	...	...	...	1	1	2	...	...	...	...	2	5	7	13
...	...	7	2	...	3	4	1	...	1	1	...	3	6	...	1	1	...	9	3	34	21
...	...	7	4	3	1	7	6	4	5	...	...	4	6	...	...	2	3	24	21	63	53
...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	2	4	3
...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	1	...	1	3
...	...	2	...	...	...	...	2	...	...	...	...	1	1	...	...	1	...	3	1	7	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	...	1	...	3	1	...	...	...	...	2	1	...	...	...	...	1	...	8	3
...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	2
...	...	...	1	...	...	1	...	...	...	...	...	...	2	...	...	...	...	3	3	4	7
...	...	2	1	...	1	...	2	...	...	...	...	...	3	...	1	1	...	13	8	16	18
1	2	57	40	20	13	54	44	13	14	4	8	45	45	5	9	10	7	164	137	435	377

TABLE NO. 1—Continued.

MAY

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Broadwater	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Cascade Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Great Falls	..	..	..	..	1	2	...	...	...	...	...	...	...	1	...	1	...	...
Chouteau	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Custer	..	..	..	..	2	2	...	...	...	...	...	...	...	...	...	...	...	...
Dawson	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Deer Lge. Excl of	..	..	..	..	5	5	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Fallon	..	1	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	...	1	...	1	...	...	...	...	...	1	...	...	...	...
Flathead Excl. of	..	..	..	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalispell	..	..	..	..	2	...	...	1	...	...	...	...	1	...	...	...	...	...
Gallatin Excl. of	..	..	..	..	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Bozeman	..	..	..	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	..	..	..	...	2	...	...	...	...	1	...	1	...	...	1	...	...
Jefferson	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Helena	..	..	..	..	2	...	...	...	...	...	...	...	3	...	1	1	...	...
Lincoln	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Madison	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meagher	..	..	..	..	...	...	2	...	1	...	...	...	...	...	...	...	...	...
Mineral	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	1	2	..	..	1	3	...	...	1	...	...	...	1	...	...	...	...	...
Musselshell	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Park Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Livingston	..	..	..	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Phillips	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	1	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Richland	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sanders	..	..	..	..	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	3	1	...	...	...	...	...	...	1	...	...	...	...	...
Silver Bow Excl. of	..	..	..	..	7	2	...	...	...	...	...	...	...	...	...	1	...	...
Butte	..	..	..	..	6	12	...	...	...	...	...	...	1	...	2	3	...	...
Stillwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Teton	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Toole	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Valley	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Billings	..	..	..	..	...	1	...	...	...	...	...	...	1	...	...	1	...	...
TOTALS	2	3	..	..	40	46	3	2	2	...	1	...	10	2	4	11	1	...

TABLE NO. 1—Continued.

MAY

Whooping Cough		Pneumonia		Nephritis		Organic Heart Disease		Malignant Tumors		Acute Intestinal Diseases		Violence		Suicide		Alcoholism		All Other Causes		Totals	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	3	1	...	...	...	4	...	...	...	...	2	...	...	...	...	...	....	2	5	7
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	....	....	....	1
1	...	3	1	...	1	1	1	...	...	1	1	1	...	1	...	...	...	....	....	9	4
...	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	....	2	2	5
...	...	...	1	...	1	1	1	...	...	...	...	1	...	...	...	...	...	2	....	5	4
...	...	2	1	...	...	...	2	2	2	...	...	1	...	...	...	...	...	1	4	7	10
...	...	6	1	2	...	2	4	2	2	...	...	2	1	1	1	...	...	15	4	31	17
...	...	...	...	...	...	1	2	...	...	...	1	4	...	...	...	...	...	....	4	5	7
...	1	1	...	1	1	2	...	...	1	...	...	1	2	...	1	...	...	2	2	.9	10
...	...	2	...	1	3	2	2	...	...	...	...	2	...	...	...	...	...	5	3	13	8
...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	9	4	16	11
...	...	...	3	1	...	2	...	...	...	...	...	1	...	...	...	1	...	6	7	11	11
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	3
...	...	2	1	1	...	2	3	...	1	...	...	1	1	...	1	1	...	2	6	9	16
...	...	...	1	2	1	2	...	...	1	...	...	1	1	...	...	...	...	5	3	12	7
...	...	...	2	1	1	...	...	...	...	...	...	...	...	1	...	...	...	2	1	7	5
...	...	1	...	...	1	1	...	...	1	...	...	1	2	...	...	...	...	5	2	9	6
...	...	1	...	1	1	...	4	...	...	...	...	1	...	...	...	...	...	2	....	7	5
...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	1	4	1
...	1	2	2	1	1	1	...	...	2	...	...	...	1	1	1	...	...	5	....	12	11
...	...	...	...	...	...	...	2	...	1	...	...	1	2	...	...	...	...	....	....	1	5
...	...	...	1	1	2	...	1	...	...	...	...	...	2	...	...	...	...	....	1	1	8
...	...	...	2	1	1	2	6	...	1	...	...	1	...	...	2	...	...	3	4	13	17
...	...	2	2	...	...	...	...	...	2	...	...	2	2	1	...	...	...	....	2	5	10
...	...	1	...	1	...	1	1	...	...	...	...	...	...	1	...	...	...	3	1	7	2
...	...	1	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	1	4	6	6
...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	....	....	....	2
...	...	...	...	...	...	2	...	1	...	...	...	1	2	...	...	...	1	2	....	7	3
...	...	1	4	...	1	2	6	...	...	...	...	4	1	...	1	1	...	4	6	16	24
...	...	1	1	...	...	...	...	...	...	1	...	...	3	1	1	...	...	5	....	9	6
...	...	...	2	...	1	1	...	1	...	...	...	...	...	1	...	...	...	....	4	3	8
...	...	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	2	2	5	4
...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	....	1	....	5
...	...	...	...	...	...	1	2	...	1	...	...	2	...	...	...	...	...	2	1	5	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....	....
...	...	1	...	1	...	1	...	...	...	...	1	2	...	1	...	...	...	6	7	13	9
...	...	...	...	...	1	...	4	...	...	...	...	...	...	...	...	...	...	....	2	....	7
...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	1	2	3	3
...	...	...	...	...	2	1	...	...	...	...	...	...	1	...	1	...	...	3	2	4	9
...	...	1	2	...	...	4	...	...	...	...	...	1	2	...	...	...	...	1	2	11	7
...	...	4	2	...	...	3	2	...	...	1	...	2	9	1	...	1	...	6	4	25	20
...	...	8	13	6	3	4	9	1	4	1	...	5	2	3	...	2	...	16	16	55	62
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	2	1	3	2
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	....	2	1	3
...	...	2	2	...	1	3	2	1	...	...	...	...	1	...	...	...	...	1	4	7	10
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	2	....	4
...	...	...	...	...	1	1	...	...	...	1	...	3	1	1	...	...	...	2	....	8	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	....	1
...	...	...	1	1	1	...	1	1	...	...	...	...	...	2	...	...	...	3	3	8	7
...	...	1	...	...	...	4	2	...	...	1	...	...	...	...	...	...	...	4	6	11	10
1	2	50	48	23	25	52	64	11	19	6	3	46	45	16	11	6	1	130	127	403	409

TABLE NO. 1—Continued.

JUNE

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	1	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Broadwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Carbon	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	1	...	...
Cascade Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Great Falls	..	..	..	..	4	...	...	...	...	...	...	...	...	1	...	...	...	...
Chouteau	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Custer	..	..	..	..	...	1	...	...	...	1	...	...	1	...	...	...	...	...
Dawson	..	..	..	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Deer Lge. Excl of	..	..	..	..	2	6	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	2	2	...	...	...	...	...	...	...	...	...	2	...	...
Fallon	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	...	1	...	...	...	...	...	...	...	1	2	...	...	...
Flathead Excl. of	..	..	..	..	...	...	...	...	...	1	...	...	...	...	...	1	...	...
Kalispell	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gallatin Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bozeman	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	..	..	..	2	4	1	...	...	...	...	...	...	...	...	...	...	...
Jefferson	..	..	..	..	1	1	...	...	...	...	...	...	...	1	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Helena	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Lincoln	..	..	..	..	1	1	1	...	...	...	...	...	...	1	...	...	...	...
Madison	..	..	..	..	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Meagher	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mineral	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	1	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	..	..	..	..	3	...	...	...	...	...	...	...	...	...	...	1	...	...
Musselshell	..	..	..	..	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Park Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phillips	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	2	2	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Richland	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	1	...	...	...	...	2	...	...	...	...	...	...	...	...
Sanders	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	...	1	...	...	...	2	...	...	...	...	...	...	...	...
Silver Bow Excl. of	..	..	..	..	4	3	...	...	...	...	...	...	...	...	...	...	...	...
Butte	..	..	..	..	8	3	...	...	...	...	...	...	...	1	1	2	...	...
Stillwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Teton	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Toole	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Valley	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Billings	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	2	4	..	..	38	32	2	...	...	6	...	...	2	7	4	7	...	...

TABLE NO. 1—Continued.

JUNE

Whooping Cough		Pneumonia		Nephritis		Organic Heart Disease		Malignant Tumors		Acute Intestinal Diseases		Violence		Suicide		Alcoholism		All Other Causes		Totals	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	...	...	1	...	1	...	1	...	...	...	...	3	1	1	...	...	2	2	6	7
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
...	...	1	...	1	...	...	2	...	...	...	...	...	1	1	...	...	...	2	2	5	6
...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	4	...
...	...	...	...	...	1	1	1	...	...	...	...	...	1	...	...	...	...	4	1	5	6
...	...	...	...	...	...	2	1	2	1	...	...	...	1	...	...	...	...	3	2	7	5
...	...	3	...	2	3	3	2	1	...	...	...	3	2	1	...	...	1	11	7	28	16
...	...	...	...	...	1	1	...	1	...	...	...	2	1	...	...	...	...	1	1	5	3
...	...	1	...	2	2	...	2	...	...	...	...	2	2	...	1	...	...	3	3	9	12
...	...	1	...	...	...	1	...	3	1	...	...	1	...	...	...	...	...	5	3	13	4
...	...	1	...	1	1	...	...	...	...	...	...	4	...	...	...	...	...	10	10	18	17
...	...	...	3	...	...	2	...	...	...	1	1	...	2	...	...	1	...	2	2	8	12
...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	2	2
...	...	...	2	...	2	...	1	...	...	...	...	...	2	1	...	...	1	4	2	7	12
...	...	...	1	3	1	2	3	4	...	...	...	1	1	...	...	...	...	1	4	11	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	1	4	1
...	...	...	...	...	1	...	...	...	...	...	...	...	1	3	...	...	1	1	3	4	6
...	...	...	...	1	...	3	...	...	...	...	...	1	...	1	...	...	...	6	1	12	1
...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	5	3	9	8
...	...	...	...	...	...	1	...	...	1	...	...	1	...	...	...	...	...	2	1	5	4
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	3	2
...	...	...	1	...	2	3	7	...	3	...	...	2	...	...	1	...	...	3	2	9	17
...	...	...	1	...	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...	3	5
...	...	...	...	1	...	2	1	...	1	...	...	...	1	1	...	...	1	2	3	7	8
...	...	...	...	...	...	1	...	2	...	...	...	...	...	1	...	...	...	5	3	9	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	2	...	6	1
...	...	...	1	1	...	2	1	1	...	...	2	2	4	...	...	...	...	7	9	16	18
...	...	...	1	...	...	...	...	...	...	1	...	1	1	...	...	...	...	3	5	5	9
...	...	...	...	1	...	1	...	...	...	...	...	1	1	...	...	...	...	1	1	4	[illegible]
...	...	...	...	...	...	...	3	...	1	...	...	...	...	...	...	...	...	1	...	1	4
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	1	1	...	...	2	1	...	...	...	...	...	...	...	...	...	...	2	...	5	3
...	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	3	...	7
...	...	...	...	...	1	2	...	...	1	...	...	2	2	1	...	...	...	3	2	10	8
...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	2	3	5
...	...	...	...	...	...	4	...	...	...	...	...	4	1	...	...	...	...	1	2	10	5
...	...	1	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...	1	1	3	3
...	...	1	...	...	...	3	...	1	...	...	...	1	1	...	...	...	...	3	1	9	5
...	...	3	1	1	1	3	5	4	1	...	...	3	4	...	...	1	...	12	6	31	21
...	...	7	2	4	1	12	7	6	...	...	...	9	5	2	1	1	3	16	12	66	37
...	...	...	1	...	...	1	2	...	...	...	...	1	...	...	...	...	...	...	4	2	7
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	...	...	...	2	...	...	...	2	...	...	2	...	...	...	...	1	5	6	7
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	1
...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	1	...	3	2	5	6
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...	3
...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	3	6	5	7
...	...	...	1	...	1	...	...	...	...	1	1	...	1	...	...	...	1	3	5	4	11
...	...	21	20	20	23	58	43	26	11	5	4	47	48	15	4	5	8	141	126	386	343

TABLE NO. 1—Continued.

JULY

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Broadwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cascade Excl. of	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Great Falls	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Chouteau	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Custer	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Dawson	..	..	..	..	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Deer Lge. Excl of	..	..	..	..	1	3	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Fallon	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Flathead Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Kalispell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gallatin Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bozeman	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	..	..	..	3	...	1	...	...	...	...	...	1	...	...	...	...	...
Jefferson	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Lewis & C.Excl.of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Helena	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Lincoln	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madison	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meagher	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mineral	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	..	..	..	..	2	1	...	...	...	...	...	...	...	...	...	...	...	...
Musselshell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Park Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Phillips	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	..	..	..	..	...	3	...	...	...	...	...	...	...	...	1	...	...	...
Richland	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	1	1	...	...	...	1	...	...	1	...	...	...	...	...
Sanders	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	1	...	1	...	...	...	...	...	...	...	1	...	...	...
Silver Bow Excl.of	..	..	..	..	2	2	...	...	1	...	...	...	...	...	...	...	...	...
Butte	..	..	..	..	4	2	...	...	...	...	...	...	1	...	2	...	...	...
Stillwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	1	2	...	...	...	...	...	...	...	...	...	1	...	...
Teton	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Toole	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Valley	..	..	..	..	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl.of	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Billings	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	..	..	..	..	23	22	2	1	1	1	...	...	5	2	5	1	...	...

TABLE NO. 1—Continued.

JULY

Whooping Cough..........		Pneumonia..........		Nephritis..........		Organic Heart Disease...		Malignant Tumors........		Acute Intestinal Diseases.		Violence..........		Suicide..........		Alcoholism..........		All Other Causes..........		Totals..........	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	1	...	1	1	...	...	...	1	...	...	3	3	...	...	1	...	1	1	7	6
...	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	....	....	2	1
...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	...	...	1	1	3	4
...	...	...	...	...	...	...	...	...	...	1	...	3	...	...	...	...	...	3	....	7	....
...	...	...	1	...	...	2	...	...	...	...	...	3	1	...	...	...	...	6	2	11	4
...	...	...	...	1	...	...	...	...	...	1	2	1	3	...	...	...	...	7	....	11	5
...	...	5	1	1	...	2	1	...	1	3	...	1	1	...	1	2	...	8	11	23	16
...	...	1	1	1	...	...	...	1	...	4	...	2	1	...	...	...	...	5	5	14	8
...	...	...	1	...	...	3	...	4	2	1	...	4	4	1	...	1	...	3	3	18	10
...	...	...	...	...	...	2	1	1	...	...	1	2	1	...	...	...	1	6	4	12	9
...	...	...	...	...	1	2	...	1	...	...	...	...	1	...	...	...	...	14	8	18	13
...	...	...	...	...	3	1	3	1	...	1	...	3	4	...	1	...	1	3	2	10	14
...	...	...	...	...	1	...	...	...	...	...	...	2	1	...	...	...	...	....	1	2	4
...	...	...	...	1	3	1	...	1	2	1	...	1	3	...	...	...	...	6	6	11	14
...	...	...	1	...	2	...	1	...	...	1	...	2	2	...	...	...	...	3	4	6	11
...	...	...	...	...	3	1	2	...	...	...	...	1	...	...	...	...	...	1	2	3	7
...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	....	3	2	4
...	...	...	...	2	...	...	1	1	...	...	...	...	2	...	...	...	...	3	3	6	7
...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	....	....	2	1
...	...	...	...	...	1	1	...	...	...	1	...	1	1	2	...	...	...	4	5	14	7
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	....	2	1	4
...	...	1	...	1	1	...	1	1	...	...	...	1	1	...	...	...	1	....	1	4	5
...	...	2	...	1	3	2	2	1	2	...	...	...	2	1	...	...	...	3	6	10	16
...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	1	...	...	....	1	2	4
...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	1	...	...	1	1	3	3
...	...	...	...	...	1	...	...	...	...	...	...	4	2	1	...	...	...	1	....	6	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....	....
...	...	...	...	...	1	1	1	...	...	...	...	1	2	1	...	...	...	2	....	6	5
...	...	...	1	1	3	1	...	...	...	...	...	2	...	...	1	...	...	5	5	11	11
...	...	...	...	...	1	...	1	...	...	2	1	1	1	1	...	...	...	....	3	4	7
...	...	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	1	1	2	3
...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	1	...	....	2	2	6
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	....	....	....	1
...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	1	1	5	1
...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	....	....	....	2
...	...	...	...	...	2	3	1	...	...	...	1	...	1	...	...	...	...	....	4	4	12
...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	2	2	3	3
...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	....	....	3	4
...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	1	1
...	...	...	...	...	1	1	1	...	...	1	...	1	...	...	...	...	...	....	2	6	4
...	...	1	...	2	2	2	1	2	...	...	1	2	4	...	1	2	...	5	3	19	14
...	...	5	2	5	4	1	6	1	2	1	1	11	7	2	1	...	1	18	24	51	50
...	...	...	...	...	...	...	1	...	...	...	...	2	1	...	...	...	...	2	2	4	4
...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	....	1	3	5
...	...	...	1	...	...	2	1	...	...	1	...	...	2	...	...	...	1	1	3	4	8
...	...	...	...	...	1	1	...	...	...	2	...	...	1	...	...	...	...	1	1	4	3
...	...	...	...	1	...	...	...	...	...	...	...	2	1	1	...	...	...	4	....	9	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....	....
...	...	...	...	...	1	...	...	...	...	2	...	2	1	...	1	...	...	1	....	6	3
...	...	1	...	1	...	...	1	2	...	...	...	...	2	...	...	...	...	4	5	9	8
...	...	17	9	22	42	34	31	18	11	23	8	69	62	12	9	7	5	126	132	364	336

TABLE NO 1—Continued.

AUGUST

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		eningitis		nterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Broadwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	1	3	...	...	...	...	...	...	...	...	...	1	...	...
Cascade Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Great Falls	..	..	..	..	1	2	...	...	...	...	...	...	1	...	...	...	...	...
Chouteau	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Custer	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Dawson	..	..	..	..	...	...	...	...	...	...	...	...	...	2	...	1	...	...
Deer Lge. Excl of	..	..	..	..	1	2	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fallon	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Flathead Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Kalispell	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gallatin Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Bozeman	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Granite	..	..	..	..	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Hill	..	..	..	..	...	1	...	...	1	...	...	...	...	2	...	...	...	...
Jefferson	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Helena	..	..	..	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Lincoln	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madison	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Meagner	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mineral	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	..	..	..	..	1	...	...	...	...	...	...	...	...	1	1	...	...	...
Musselshell	..	..	..	..	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Park Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Phillips	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	..	1	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Richland	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Sanders	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	2	1	...	...	...	...	...	...	...	...	...	...	...	...
Silver Bow Excl. of	..	..	..	..	1	4	...	...	2	...	...	...	...	...	1	...	...	...
Butte	..	..	..	..	11	10	...	1	...	...	...	...	1	...	1	...	...	...
Stillwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Teton	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Toole	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Valley	..	..	..	..	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Billings	..	..	..	..	2	1	...	...	...	...	...	...	1	...	...	...	...	...
TOTALS	..	1	..	..	31	37	...	1	3	...	...	...	5	8	6	3	...	...

TABLE NO. 1—Continued.

AUGUST

Whooping Cough		Pneumonia		Nephritis		Organic Heart Disease		Malignant Tumors		Acute Intestinal Diseases		Violence		Suicide		Alcoholism		All Other Causes		Totals	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	1	3	...	...	2	1	...	...	...	...	...	4	...	...	...	...	....	....	3	10
...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	...	...	....	1	3	2
...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	2	1	6	2
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	....	1	1
...	...	...	1	...	...	1	...	...	...	1	...	1	3	...	...	...	...	5	4	9	12
...	...	1	...	...	...	1	2	...	...	1	1	...	5	...	1	...	...	....	1	3	11
...	...	6	2	3	...	1	3	2	...	...	2	...	1	...	...	...	...	11	13	25	23
...	...	...	...	1	...	1	1	...	1	...	...	4	2	...	...	...	...	4	1	11	5
...	...	...	...	...	...	...	...	1	1	1	1	4	3	...	...	...	...	2	6	9	11
...	...	...	...	...	...	3	...	...	...	...	...	2	...	...	...	...	...	4	2	9	5
...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	9	7	12	9
...	...	...	2	2	3	...	2	...	...	...	...	1	4	...	...	...	...	2	4	5	15
...	...	...	1	...	...	1	1	...	1	...	...	...	1	...	...	...	...	3	....	4	4
...	...	3	...	...	1	3	2	1	1	3	1	...	4	1	...	...	...	3	8	14	19
...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	....	4	....
...	...	...	...	1	3	1	2	...	1	...	...	1	1	1	...	...	...	4	1	9	8
...	...	...	1	1	...	...	2	...	...	...	...	3	2	...	...	...	...	1	1	6	6
...	...	...	...	1	...	1	2	...	...	1	...	1	1	...	...	...	...	....	1	4	5
...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	....	....	2	3
...	...	...	...	...	...	...	1	...	...	3	...	...	1	...	1	...	...	3	2	7	8
...	...	...	...	...	...	...	...	...	...	1	...	1	2	...	...	...	...	....	....	3	2
...	...	...	2	...	1	1	2	...	...	...	...	1	...	...	...	...	...	1	....	3	6
...	...	...	...	...	2	1	2	...	...	...	...	...	1	...	...	...	...	7	6	10	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	....	3	....
...	...	...	...	...	...	2	1	1	...	...	...	...	...	...	...	...	...	....	1	4	3
...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	...	...	4	1	6	3
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	1	3	1
...	...	1	...	...	1	1	...	...	1	2	...	...	1	...	...	...	...	1	1	5	5
...	...	...	...	...	2	1	...	2	1	2	...	2	...	...	...	...	...	3	7	12	11
...	...	...	...	...	...	...	...	1	...	6	1	...	...	...	...	...	...	....	1	9	2
...	...	...	...	...	...	...	...	1	...	...	...	3	1	...	...	...	...	2	1	6	2
...	...	...	...	1	...	...	1	...	...	...	...	1	...	...	...	...	...	7	5	10	6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....	....
...	...	...	...	...	1	2	...	...	...	1	...	2	1	...	...	...	...	2	1	7	3
...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	....	....	....	3
...	...	1	...	...	...	1	2	...	1	...	...	...	1	...	...	...	...	1	3	3	9
...	...	1	...	...	...	...	1	...	...	...	...	2	3	...	...	...	...	1	1	4	5
...	...	...	...	...	...	...	...	...	...	1	...	2	1	...	...	...	...	1	2	5	4
...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	....	1	3	2
...	...	...	...	...	...	...	...	...	1	1	...	2	2	...	...	...	...	....	3	5	7
...	...	1	...	5	...	1	2	...	...	4	...	2	5	1	...	1	...	8	2	27	13
...	...	1	2	3	...	4	3	2	1	13	3	7	3	3	...	...	3	17	12	63	38
...	...	1	...	1	...	1	2	...	...	...	...	...	1	...	...	...	...	....	....	3	3
...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	1	1	3
...	...	...	1	...	...	1	3	...	...	...	...	1	2	...	...	1	...	4	1	7	9
...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	....	1	3	2
...	...	1	...	2	...	1	1	1	...	...	...	1	1	...	...	...	...	4	1	11	3
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	....	....	....	1
...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	4	4	5	6
...	...	...	...	2	1	...	2	...	...	2	1	2	2	1	...	...	...	4	1	14	8
...	...	19	16	23	15	34	42	12	10	43	13	58	67	12	3	3	3	132	111	381	330

TABLE NO. 1—Continued.

SEPTEMBER

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead																		
Big Horn	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Broadwater	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Cascade Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Great Falls	..	..	..	..	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Chouteau	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Custer	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Dawson	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Deer Lge. Excl of	..	..	..	..	5	3	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	...	3	...	...	...	...	...	...	...	...	1	...	...	...
Fallon	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Flathead Excl. of	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalispell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gallatin Excl. of	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Bozeman	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	..	..	..	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Jefferson	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Helena	..	..	..	..	...	1	...	...	...	...	...	...	1	2	...	1	...	...
Lincoln	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Madison	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meagher	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Mineral	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Missoula City	..	..	..	..	1	3	...	...	...	...	...	...	...	...	...	...	...	...
Musselshell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Park Excl. of	..	..	..	..	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Phillips	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Richland	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Sanders	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Silver Bow Excl. of	..	..	..	..	1	2	1	1	...	...	...	...	...	...	1	...	...	...
Butte	..	..	..	..	9	3	...	...	...	...	...	...	...	...	1	3	...	...
Stillwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Teton	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Toole	..	..	..	..	...	...	...	...	...	...	...	...	2	...	...	...	...	...
Valley	..	..	..	..	1	1	...	...	...	...	...	...	...	...	1	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Billings	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	..	..	..	..	30	31	2	1	1	...	...	...	5	4	5	4	2	...

TABLE NO. 1—Continued.

SEPTEMBER

Whooping Cough		Pneumonia		Nephritis		Organic Heart Disease		Malignant Tumors		Acute Intestinal Diseases		Violence		Suicide		Alcoholism		All Other Causes		Totals	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	...	1	...	1	1	1	...	...	...	...	5	3	...	1	...	...	3	2	9	10
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....	....
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	1	3	1
...	...	...	...	1	...	1	1	1	...	...	...	...	...	...	...	...	...	....	1	3	4
...	...	...	...	1	...	...	1	...	...	6	1	...	1	1	...	...	...	4	3	12	7
...	...	1	1	1	...	1	...	...	...	...	...	3	1	...	...	...	...	4	3	11	6
...	1	5	1	1	1	3	3	1	2	5	...	2	...	2	...	1	1	5	4	25	16
...	...	...	...	...	...	...	1	1	2	1	1	...	1	...	...	...	...	3	....	5	5
...	...	...	...	...	1	3	1	...	...	2	1	...	4	...	...	...	...	3	3	9	11
...	...	...	...	...	...	...	1	...	...	...	...	...	6	...	...	...	...	3	3	4	10
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	9	6	15	9
...	...	1	1	...	...	1	...	1	...	...	...	...	2	...	...	...	...	3	2	7	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	....	1	2	1
...	...	...	1	1	1	...	1	...	1	1	1	1	7	1	1	...	...	6	5	11	19
...	...	...	...	...	1	...	2	2	...	1	1	1	2	...	3	1	...	4	5	10	14
...	...	...	1	...	2	...	1	1	1	1	...	1	...	...	...	...	...	4	5	7	10
...	...	...	...	...	1	1	1	...	...	1	...	2	...	...	...	...	...	3	1	8	3
...	...	...	...	1	3	...	...	...	3	...	...	1	1	...	...	...	...	4	1	6	8
...	...	...	...	...	...	1	2	...	...	...	...	...	1	1	...	...	...	....	....	4	3
...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	3	4	6	6
...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	....	....	....	2
...	...	1	...	...	...	1	2	...	1	1	...	...	...	...	...	...	...	1	1	4	4
...	...	1	2	3	4	5	4	...	1	1	...	1	1	1	1	...	...	2	6	15	23
...	...	...	...	...	1	...	...	...	1	...	3	1	...	...	...	...	...	1	1	3	6
...	...	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	....	....	3	....
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	4	3	5
...	...	...	...	...	...	2	...	...	...	...	...	...	5	...	1	...	...	....	....	2	7
...	...	...	...	...	1	1	...	...	...	...	...	5	1	...	...	...	...	2	1	9	4
...	...	...	1	...	2	5	5	3	1	1	1	1	...	...	...	...	...	4	1	15	14
...	...	...	...	...	...	1	1	...	...	1	...	...	2	1	...	...	...	....	3	3	6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	1
...	...	...	...	...	...	1	...	1	...	...	...	1	...	...	1	...	...	3	2	7	3
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	....	....	....	1
...	...	1	...	...	1	1	2	2	...	1	...	...	1	...	...	...	...	1	....	6	5
...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	....	....	....	2
...	...	...	...	1	...	1	2	1	1	...	1	1	...	...	...	...	...	3	3	8	7
...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	3	....	4	1
...	...	...	...	...	...	1	...	...	...	1	...	1	1	1	...	...	...	2	1	7	2
...	...	...	...	1	...	...	1	...	...	...	...	...	2	1	1	...	...	2	2	4	6
...	...	...	...	...	...	3	...	1	...	1	...	1	1	...	...	...	...	5	2	11	4
...	...	1	2	...	1	3	1	...	...	3	...	1	1	...	1	...	...	4	3	15	12
1	...	2	3	4	3	8	10	4	3	7	5	4	7	1	1	...	...	24	17	65	55
...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	....	3	....	5
...	...	...	...	2	1	...	...	...	...	...	...	...	1	...	...	...	...	1	2	4	4
...	...	1	...	...	2	...	2	2	1	...	...	3	...	...	...	...	...	2	3	9	8
...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	....	3	3	5
...	...	...	...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	1	1	5	3
...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	1	2	2
...	...	1	...	...	...	...	...	...	...	1	1	1	2	1	...	...	...	.1	1	5	4
...	...	...	1	1	1	2	...	1	...	2	1	1	1	...	...	...	...	3	4	10	10
1	2	16	15	19	29	49	50	24	19	40	18	42	60	12	11	2	2	131	116	381	362

TABLE NO. 1—Continued.

OCTOBER

	Spotted Fever..........		Smallpox..........		Tuberculosis..........		Diphtheria..........		Scarlet Fever..........		Measles..........		Typhoid Fever..........		Meningitis..........		Anterior Poliomyelitis....	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Broadwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Cascade Excl. of	..	..	..	..	1	1	...	...	1	...	...	...	...	...	1	...	...	...
Great Falls	..	..	..	..	2	...	1	...	...	...	...	...	1	...	...	...	...	...
Chouteau	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Custer	..	..	..	..	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Dawson	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Deer Lge. Excl of	..	..	..	..	2	1	...	...	...	...	...	...	...	1	...	...	...	...
Anaconda	..	..	..	..	2	1	...	...	...	...	...	...	...	...	...	...	...	...
Fallon	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Fergus	..	..	..	..	...	4	...	...	...	...	...	...	...	1	...	...	...	...
Flathead Excl. of	..	..	..	..	2	...	...	...	...	...	...	...	...	2	...	...	...	...
Kalispell	..	..	..	..	1	...	...	...	...	...	...	...	1	...	...	1	...	...
Gallatin Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Bozeman	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	..	..	..	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Jefferson	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Helena	..	..	..	..	2	2	...	...	...	...	...	...	1	...	...	...	...	...
Lincoln	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Madison	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Meagher	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mineral	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	..	..	..	..	...	1	...	...	...	...	...	...	...	3	...	1	...	..
Musselshell	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Park Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Phillips	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Richland	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rosebud	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sanders	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Silver Bow Excl. of	..	..	..	..	6	4	...	...	...	...	...	...	...	...	1	...	...	...
Butte	..	..	..	..	9	5	...	...	...	...	...	...	...	1	1	1	...	...
Stillwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Teton	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Toole	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Valley	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Billings	..	..	..	..	...	1	...	...	...	...	...	...	...	...	1	...	...	...
TOTALS	..	..	..	..	34	33	3	...	1	...	...	...	8	10	4	4	...	...

TABLE NO. 1—Continued.

OCTOBER

Whooping Cough.........		Pneumonia..............		Nephritis................		Organic Heart Disease....		Malignant Tumors.........		Acute Intestinal Diseases.		Violence..................		Suicide....................		Alcoholism................		All Other Causes..........		Totals....................	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	3	...	...	...	1	2	1	1	...	...	1	1	...	...	...	...	2	1	9	5
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	....	2	....	3
...	...	...	...	...	1	...	2	1	...	...	...	...	...	1	...	...	...	3	....	6	3
...	...	1	...	...	...	...	1	1	1	...	...	...	...	...	...	...	1	....	2	2	5
...	...	...	...	...	...	...	1	1	...	2	...	1	...	1	...	...	...	8	3	14	4
...	...	...	...	...	...	...	2	1	...	1	...	1	2	1	...	...	...	3	....	10	5
...	...	1	1	...	...	2	1	1	1	1	1	...	3	1	2	...	...	7	6	17	15
...	...	1	...	...	...	2	1	...	1	...	...	...	...	...	...	...	...	....	5	3	8
...	...	1	1	1	1	...	1	...	...	...	...	1	1	...	1	...	...	3	4	9	9
...	...	1	...	...	...	2	...	...	1	...	1	2	2	...	2	...	...	5	3	11	10
...	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	6	12	10	15
...	...	...	1	...	1	1	...	1	...	...	...	1	...	1	...	...	...	3	7	9	10
...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	....	1	....	4
...	...	1	1	...	1	2	1	1	...	2	1	2	2	...	1	...	1	7	1	15	14
...	...	1	1	...	1	2	...	1	1	...	...	...	...	...	1	...	...	5	5	11	11
...	...	...	1	2	...	1	...	1	...	...	1	...	1	...	...	...	...	3	1	9	5
...	...	1	2	...	...	2	1	...	...	2	1	...	2	...	1	...	...	5	2	11	9
...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	6	2
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	5	1	5	2
...	...	2	1	1	3	1	3	2	...	1	1	2	1	...	...	...	1	1	7	10	21
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	....	2	2
...	...	1	...	3	...	1	1	...	...	...	...	...	...	...	...	...	...	3	....	8	2
...	...	1	...	2	2	4	3	1	2	1	...	2	...	...	1	...	...	4	6	18	16
...	...	...	1	...	...	1	...	1	1	...	1	1	1	...	...	...	1	4	....	8	5
...	...	...	...	...	1	1	2	...	1	1	...	1	1	...	...	...	...	4	1	7	7
...	...	...	...	1	1	1	...	...	...	...	...	...	...	1	...	...	1	1	6	4	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	1	....
...	...	...	2	...	1	1	1	...	...	...	...	1	...	...	1	...	...	5	4	7	9
...	...	1	2	...	2	2	1	3	...	1	1	...	...	1	...	...	...	5	3	13	14
...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	1	2	4	4
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	3	2	3	3
...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	2	4
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	....	1	....	2
...	...	...	1	...	...	3	...	...	...	...	1	1	1	...	...	...	...	4	1	8	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	....	1
...	...	...	...	1	...	2	2	...	1	...	1	...	1	...	...	...	1	4	1	8	7
...	...	...	...	1	...	...	...	...	1	1	...	2	...	...	...	...	...	4	3	8	4
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	....	2
...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	....	....	1	2
...	...	1	...	...	2	...	...	...	...	...	...	4	2	...	...	...	...	2	2	8	7
...	...	4	...	2	2	1	...	1	1	1	2	1	14	1	...	...	1	3	3	21	27
...	...	10	12	5	2	4	11	1	9	1	2	...	8	1	1	2	...	16	25	50	77
...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	....	1	....	3
...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	1	1	...	2	2	5	4
...	...	...	...	...	1	...	1	1	...	...	...	1	1	1	...	...	1	2	4	6	8
...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	....	1	2	3
...	...	1	...	1	...	...	...	1	...	1	...	...	...	1	...	...	...	1	1	6	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	....	1	....
...	...	...	1	1	1	...	...	...	...	1	...	4	...	...	1	...	...	....	1	6	5
...	...	2	...	1	...	1	1	1	1	...	...	2	3	1	...	...	...	4	4	13	10
...	...	38	31	22	25	39	41	22	25	18	16	36	53	13	13	3	9	146	141	387	401

TABLE NO. 1—Continued.

NOVEMBER

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Big Horn	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Blaine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Broadwater	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Carbon	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Cascade Excl. of	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Great Falls	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..
Chouteau	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Custer	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
Dawson	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..
Deer Lge. Excl of	..	..	..	..	2	3	..	..	..	..	..	..	..	..	1	..	..	..
Anaconda	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Fallon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fergus	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..
Flathead Excl. of	..	..	..	..	..	2	..	..	..	..	..	..	..	3	..	..	..	..
Kalispell	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Gallatin Excl. of	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Bozeman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Granite	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hill	..	..	..	..	1	4	..	..	..	..	..	..	1	..	..	..	..	..
Jefferson	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lewis & C. Excl. of	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Helena	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Lincoln	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madison	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Meagher	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mineral	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Missoula Excl. of	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..
Missoula City	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Musselshell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Park Excl. of	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Livingston	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Phillips	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Powell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Prairie	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ravalli	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..
Richland	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Rosebud	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sanders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sheridan	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Silver Bow Excl. of	..	..	..	..	6	6	..	..	..	..	..	..	..	..	..	..	..	..
Butte	..	..	..	..	11	10	1	..	..	..	..	..	..	..	..	..	..	..
Stillwater	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Sweet Grass	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Teton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Toole	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Valley	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wibaux	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yellowst'e Excl. of	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..
Billings	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..
TOTALS	..	..	1	..	29	37	1	..	..	..	1	..	5	5	6	1	..	..

TABLE NO. 1—Continued.

NOVEMBER

Whooping Cough........		Pneumonia...............		Nephritis................		Organic Heart Disease....		Malignant Tumors.........		Acute Intestinal Diseases.		Violence.................		Suicide..................		Alcoholism...............		All Other Causes..........		Totals..................	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	3	2	...	...	...	...	...	...	...	...	...	2	...	...	...	1	....	2	3	7
...	...	...	1	...	...	2	1	...	...	...	...	...	...	...	...	...	...	....	1	2	3
...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	...	...	....	1	1	3
...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	1	3	3
...	...	...	1	...	1	...	...	...	...	...	...	1	3	1	...	...	...	5	1	7	7
...	...	1	...	...	...	...	...	...	...	1	...	...	1	...	...	2	...	4	2	8	4
...	...	...	6	...	1	...	1	1	1	2	...	...	2	1	1	...	...	6	9	13	22
...	...	3	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	....	....	4	2
...	...	...	...	...	...	1	3	3	1	...	...	2	...	...	1	...	...	3	1	9	8
...	...	...	1	...	1	1	1	...	...	...	...	...	2	1	...	...	...	3	6	5	13
...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	11	5	14	10
...	...	1	...	2	1	1	1	1	...	1	...	...	3	...	...	1	...	3	3	10	9
...	...	1	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	....	....	3	1
...	...	1	...	1	...	1	...	...	...	...	...	1	6	...	...	...	...	7	7	13	14
...	...	1	...	...	...	1	2	...	1	1	2	1	...	...	...	1	1	3	4	8	15
...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	2	4	3	6
...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	3	2	8	2
...	...	1	...	...	2	3	...	1	1	...	...	1	...	1	...	...	...	3	5	10	8
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	2	4
...	...	1	3	...	1	...	2	...	1	1	...	5	2	...	...	...	...	2	8	11	21
...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	2	3	2
...	...	...	1	1	1	...	1	...	1	...	...	...	1	...	1	...	2	1	2	3	11
...	...	1	...	1	...	2	3	1	1	1	1	...	...	1	...	...	...	3	7	10	13
...	...	2	...	1	...	...	1	...	1	...	...	2	1	...	...	...	...	3	1	8	4
...	...	...	1	...	...	2	1	...	...	...	...	1	...	...	...	...	1	....	....	4	3
...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	....	2	2	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	....	1	....
...	...	...	...	...	...	2	1	...	1	...	...	1	4	...	...	...	...	2	2	7	8
...	...	4	1	1	...	1	2	1	1	1	1	...	1	...	...	...	...	9	4	17	11
...	...	...	1	...	...	1	1	...	2	...	...	1	2	...	...	...	...	....	1	2	7
...	...	1	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	1	2	4	3
...	...	...	...	...	1	1	1	1	1	...	...	...	...	...	...	...	...	....	8	3	11
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	....	1	1	1
...	...	1	1	...	1	1	1	...	1	1	...	...	...	...	1	...	...	3	2	6	7
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	....	....	....	1
...	...	1	...	...	1	1	1	1	...	...	...	1	...	1	...	...	...	1	2	8	4
...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	3	....	6	1
...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	....	....	3	....
...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2	2	4	3
...	1	...	...	...	...	1	2	...	...	...	...	1	1	...	...	...	...	2	3	4	8
...	...	2	6	1	5	3	3	2	...	...	...	4	2	...	2	1	2	4	9	23	35
...	...	3	18	5	6	4	6	1	2	...	1	5	5	2	1	1	2	13	20	46	71
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	....	1	1	2
...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	....	2	2	3
...	...	2	2	...	2	1	1	1	1	...	...	...	2	...	...	...	...	5	6	9	14
...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	....	1	1	2
...	...	...	1	...	...	...	1	...	...	1	...	...	2	...	...	...	...	3	1	4	5
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	....	....	1	1
...	...	...	2	...	1	...	2	...	...	1	...	...	...	1	...	...	...	1	....	5	5
...	...	1	3	...	...	...	...	...	...	...	...	2	...	...	1	...	...	5	1	9	6
...	2	36	53	15	27	34	46	16	20	12	5	37	46	12	8	7	9	122	147	334	406

TABLE NO. 1—Continued.

DECEMBER

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Broadwater	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carbon	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Cascade Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Great Falls	..	..	..	..	2	2	...	...	...	...	...	...	...	...	...	...	...	...
Chouteau	..	..	..	..	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Custer	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	1	...	...
Dawson	..	..	..	..	3	...	1	...	...	...	...	...	1	...	...	1	...	...
Deer Lge. Excl of	..	..	..	..	3	4	...	...	...	...	...	...	...	...	...	...	...	...
Anaconda	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Fallon	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fergus	..	..	..	..	...	2	...	...	...	...	...	...	1	1	...	...	...	...
Flathead Excl. of	..	..	..	..	2	...	1	...	...	...	...	...	...	...	...	...	...	...
Kalispell	..	..	..	..	...	1	...	...	...	...	...	...	1	...	...	1	...	...
Gallatin Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bozeman	..	..	..	..	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Granite	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Jefferson	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Helena	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lincoln	..	..	..	..	1	2	...	...	...	...	...	...	1	...	...	...	...	...
Madison	..	..	..	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Meagher	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mineral	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	..	..	..	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Missoula City	..	..	1	..	1	1	...	...	...	...	...	...	1	...	...	...	...	...
Musselshell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Park Excl. of	..	..	..	..	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	..	..	..	..	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Phillips	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Richland	..	..	..	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Rosebud	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Sanders	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Silver Bow Excl. of	..	..	..	..	5	6	...	...	...	...	...	...	...	...	...	1	...	...
Butte	..	..	..	..	7	9	...	...	...	...	...	...	...	...	...	2	...	...
Stillwater	..	..	..	..	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Sweet Grass	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Teton	..	..	..	..	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Toole	..	..	..	..	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Valley	..	..	..	..	...	...	...	...	...	...	...	...	...	1	1	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Billings	..	..	..	..	1	...	...	...	...	...	...	...	...	1	...	...	...	...
TOTALS	..	..	1	..	31	40	3	...	1	...	...	...	6	6	2	7	...	...

TABLE NO. 1—Continued.

DECEMBER

Whooping Cough		Pneumonia		Nephritis		Organic Heart Disease		Malignant Tumors		Acute Intestinal Diseases		Violence		Suicide		Alcoholism		All Other Causes		Totals	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	2	2	1	1	...	...	...	...	...	...	...	2	...	1	...	...	....	....	3	6
...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	....	2	1	3
...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	....	2	....	6
...	...	2	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	3	....	5	2
...	...	2	3	...	1	1	2	...	...	...	...	1	2	1	...	1	...	6	6	13	14
...	...	1	3	1	1	1	1	2	...	...	1	...	...	...	...	...	...	3	3	8	10
...	...	7	7	2	...	2	1	7	...	1	1	1	...	1	...	1	...	8	20	32	31
...	...	1	...	...	...	...	...	...	3	1	1	1	2	...	...	...	1	2	4	6	12
...	...	1	3	1	1	...	2	3	...	...	...	...	...	...	1	...	...	3	4	8	14
...	...	1	...	1	1	2	...	...	...	...	...	3	4	...	1	...	...	5	6	17	13
...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	5	17	9	23
...	...	1	3	1	...	...	1	...	...	...	...	2	...	...	...	...	3	4	8	8	16
...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	....	....	1	1
1	...	1	3	...	1	...	1	2	...	...	...	2	...	...	...	...	2	7	5	14	15
...	...	3	...	...	2	1	...	1	...	...	...	1	2	1	...	...	...	3	2	13	6
...	...	2	2	...	...	...	...	2	...	...	...	...	1	...	...	...	...	1	3	6	8
...	...	3	5	1	...	3	...	...	1	...	...	...	2	...	...	...	...	3	5	10	13
...	1	2	1	...	2	1	1	...	1	...	...	...	2	...	...	...	...	2	10	6	18
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	4	1	5
...	...	...	1	1	...	1	2	1	...	1	1	...	2	...	...	...	...	2	4	7	10
...	...	...	7	...	...	...	...	...	1	1	...	...	...	...	...	...	...	....	2	2	11
...	...	1	4	...	1	...	...	...	1	...	...	...	2	1	1	...	1	2	4	4	15
...	...	5	10	1	1	4	6	...	1	...	...	1	...	1	1	...	...	5	5	17	24
...	...	1	3	...	1	1	...	...	...	...	...	1	...	...	...	...	...	2	1	7	7
...	...	...	2	1	...	...	1	...	...	...	...	2	1	...	2	...	...	6	5	10	11
...	...	2	2	...	...	1	...	...	...	...	...	1	...	2	...	...	2	3	1	9	4
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	....	....	....	1
...	...	2	...	...	...	...	...	...	1	1	...	...	2	...	...	...	...	1	4	5	8
...	...	4	6	2	...	4	1	2	1	...	...	...	4	...	...	...	...	9	5	24	18
...	...	1	2	...	...	2	1	...	...	...	1	2	2	...	...	...	...	....	2	5	8
...	...	2	...	...	1	1	...	1	...	...	...	...	3	1	...	...	...	1	1	7	5
...	...	1	1	...	1	2	1	...	1	...	...	...	1	...	...	1	...	1	1	6	6
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	2	....	3
...	...	...	...	...	...	2	2	...	...	...	...	...	1	...	...	...	...	4	2	6	5
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	....	2	....	3
...	...	1	1	...	1	2	2	2	...	...	...	...	...	...	...	...	...	1	4	6	9
...	...	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	5	1	6	4
...	...	...	...	...	1	...	2	...	...	...	...	...	2	...	...	...	...	1	....	1	6
...	...	...	...	...	...	1	...	...	2	...	...	...	1	...	...	...	...	1	2	2	5
...	...	...	...	...	1	...	...	...	1	1	...	1	...	...	...	1	...	2	3	5	5
...	...	2	6	1	2	4	3	1	...	...	...	1	7	...	2	...	...	2	3	16	30
...	...	7	17	4	3	4	11	1	6	1	...	5	2	...	1	...	...	16	31	45	82
...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	6	3	8	6
...	...	1	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	4	4	5
...	...	...	4	...	...	1	4	...	...	...	...	...	...	...	...	...	...	4	5	5	15
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	....	4	1
...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1	2	2	6
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....	1
...	...	3	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	4	1	8	3
...	...	5	3	...	...	2	3	...	2	...	1	1	4	1	...	...	...	5	10	15	24
1	2	68	109	20	25	47	54	25	23	8	7	26	54	10	10	5	9	143	211	397	557

TABLE NO. 1—Continued.

TOTAL

	Spotted Fever		Smallpox		Tuberculosis		Diphtheria		Scarlet Fever		Measles		Typhoid Fever		Meningitis		Anterior Poliomyelitis	
Year	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
Beaverhead	..	..	..	..	2	4	...	...	...	...	...	...	...	...	...	...	...	...
Big Horn	..	1	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blaine	..	..	..	..	1	5	...	...	...	...	...	...	4	1	...	...	...	...
Broadwater	..	..	..	..	1	4	...	...	...	...	...	...	...	...	1	...	...	...
Carbon	..	..	..	..	9	7	...	...	2	...	3	...	1	...	...	3	...	...
Cascade Excl. of	..	..	..	..	5	7	2	...	5	2	...	...	...	...	4	...	...	...
Great Falls	..	..	..	..	23	21	2	...	7	...	3	...	9	2	1	3	...	...
Chouteau	..	..	..	..	4	5	...	...	...	...	...	...	1	2	...	1	...	...
Custer	..	..	..	..	9	13	3	2	...	1	2	...	2	...	...	2	...	...
Dawson	..	..	..	..	12	3	1	1	...	...	...	...	1	4	1	3	...	...
Deer Lge. Excl of	..	..	..	..	32	37	...	...	...	...	...	...	...	1	1	...	...	...
Anaconda	..	..	..	..	6	14	...	...	...	...	...	...	...	...	2	4	...	...
Fallon	..	1	..	..	2	2	...	...	...	...	...	...	...	1	...	...	...	...
Fergus	..	..	1	..	4	19	...	1	...	...	...	...	3	4	3	...	1	...
Flathead Excl. of	..	..	..	..	10	6	1	...	...	1	...	...	2	6	...	2	...	...
Kalispell	..	..	..	..	8	1	...	1	...	...	...	...	3	1	...	2	...	...
Gallatin Excl. of	..	..	1	..	3	2	1	...	...	...	...	...	3	1	...	1	...	...
Bozeman	..	..	..	..	3	2	1	...	...	...	...	...	...	...	...	1	...	...
Granite	..	..	..	..	4	3	...	...	...	...	...	...	...	1	...	...	...	...
Hill	..	..	..	..	14	17	2	...	1	1	1	...	6	2	...	1	...	...
Jefferson	..	..	..	..	4	5	...	...	...	...	...	...	1	2	...	...	...	...
Lewis & C. Excl. of	..	..	..	..	2	7	...	...	...	...	...	...	...	...	...	2	...	...
Helena	..	..	..	..	10	9	...	1	...	...	...	...	5	4	3	4	...	...
Lincoln	..	..	..	..	3	8	1	...	...	...	...	...	2	1	...	...	...	1
Madison	..	..	..	..	3	5	...	...	...	...	...	...	2	1	1	...	...	...
Meagher	..	..	..	..	...	...	2	...	2	...	...	...	...	...	...	2	1	...
Mineral	..	..	..	..	1	2	...	...	...	...	...	...	...	...	...	...	...	...
Missoula Excl. of	..	1	..	..	6	9	...	...	...	...	...	...	...	1	1	...	...	...
Missoula City	3	2	1	..	14	12	...	1	1	...	...	...	2	4	1	3	...	...
Musselshell	..	..	..	..	5	6	1	...	...	...	...	...	...	1	2	...	...	...
Park Excl. of	..	..	..	..	1	...	1	...	...	...	...	...	...	...	...	1	...	...
Livingston	..	..	..	..	5	3	...	...	1	2	...	...	...	1	2	1	...	...
Phillips	..	..	..	..	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Powell	..	..	..	..	2	2	...	...	...	...	...	...	...	...	...	...	...	...
Prairie	..	..	..	..	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Ravalli	4	3	..	..	4	6	...	...	...	...	...	...	1	...	2	1	...	...
Richland	..	..	..	..	2	3	...	2	...	...	...	...	...	1	...	...	...	...
Rosebud	..	..	..	..	5	2	1	...	...	3	...	...	1	1	...	...	...	...
Sanders	..	..	..	..	...	5	...	...	...	...	...	...	...	...	...	...	...	...
Sheridan	..	..	..	..	9	15	1	3	...	2	1	...	2	1	1	...	...	...
Silver Bow Excl. of	..	..	1	1	59	50	1	1	5	...	...	...	...	...	3	2	...	...
Butte	..	..	..	..	106	81	2	2	2	...	...	...	3	4	19	12	...	...
Stillwater	..	..	..	..	1	3	...	...	...	...	...	...	1	1	...	...	...	...
Sweet Grass	..	..	..	..	1	3	...	...	1	...	...	...	...	...	2	2	...	...
Teton	..	..	..	..	...	4	1	1	...	...	...	...	2	2	1	...	...	...
Toole	..	..	..	..	1	4	...	...	...	...	...	...	2	1	1	...	...	...
Valley	..	..	..	..	2	7	3	...	...	...	...	...	...	2	5	...	...	...
Wibaux	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellowst'e Excl. of	..	..	..	..	6	7	1	1	...	...	2	...	...	2	1	...	...	...
Billings	..	..	..	..	5	9	1	...	1	...	1	...	3	1	2	1	...	...
TOTALS	7	8	4	1	409	444	29	17	28	12	13	...	62	57	60	54	2	1

TABLE NO. 1—Continued.

TOTAL

Whooping Cough		Pneumonia		Nephritis		Organic Heart Disease		Malignant Tumors		Acute Intestinal Diseases		Violence		Suicide		Alcoholism		All Other Causes		Totals	
14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
...	...	16	12	4	3	7	13	2	3	...	...	12	21	1	6	1	1	9	19	54	82
...	...	1	5	2	3	3	1	1	...	...	...	6	2	...	...	...	...	4	6	17	18
1	1	9	2	1	4	4	7	1	1	1	3	7	6	4	1	2	...	18	14	53	45
...	1	5	8	4	...	3	3	3	1	1	...	7	4	...	2	...	1	14	10	39	34
...	...	17	12	1	6	8	8	2	...	10	4	12	16	5	...	1	1	52	33	123	90
...	...	13	12	4	4	7	11	10	4	7	4	11	19	1	1	2	...	33	31	104	95
...	1	58	37	15	12	26	25	20	15	13	7	22	16	7	5	5	2	134	117	345	263
...	...	9	5	3	3	7	7	5	8	6	5	17	12	...	...	...	2	19	27	71	77
...	1	9	10	7	13	14	12	16	6	5	2	21	16	1	5	3	...	35	43	127	126
1	2	14	11	5	7	22	7	6	4	1	2	14	19	1	4	...	1	55	44	134	112
...	...	10	5	1	2	9	4	1	...	...	...	9	3	1	1	1	...	95	94	160	147
...	...	13	17	7	12	15	12	6	...	3	3	13	19	2	2	4	6	54	56	125	145
...	...	4	4	2	2	2	2	1	1	...	...	3	5	2	...	...	...	7	10	23	28
1	...	18	14	8	10	15	14	7	5	7	3	16	30	4	4	1	4	65	71	154	179
...	...	10	10	5	10	13	14	8	4	3	3	14	12	2	5	2	1	35	37	105	111
...	1	6	12	7	11	7	10	6	7	1	2	4	5	2	1	1	1	22	29	67	84
2	...	9	15	4	3	8	6	1	2	4	1	9	14	6	1	...	1	30	45	81	92
...	1	8	2	9	13	8	12	3	7	1	...	5	7	3	...	...	...	33	33	74	78
...	...	1	2	...	1	4	5	1	...	1	...	5	3	2	2	...	3	15	13	33	33
...	1	10	22	7	9	8	16	6	6	9	3	15	13	3	2	...	1	43	53	125	147
...	...	2	10	1	1	5	4	...	3	2	1	4	6	...	2	...	1	7	12	26	47
...	...	5	12	9	7	11	15	3	3	2	...	5	7	1	2	1	4	17	21	56	80
...	...	17	26	15	23	35	44	6	14	5	1	12	7	5	8	1	...	49	70	163	211
...	...	7	8	2	2	3	3	1	6	...	4	11	10	3	2	...	1	16	14	49	60
...	1	7	5	4	2	14	9	2	5	1	...	8	6	2	5	...	2	24	24	68	65
...	1	7	3	3	2	8	1	3	...	1	...	8	8	6	1	...	3	23	28	64	49
...	...	...	...	...	...	2	2	...	1	...	...	1	9	...	2	...	...	3	1	7	17
...	...	5	7	...	6	10	6	2	5	3	...	13	13	3	1	...	1	23	19	66	69
...	...	17	21	10	16	30	23	15	11	6	8	14	15	3	3	2	1	68	69	187	189
...	...	9	16	1	4	7	7	1	3	12	5	14	15	5	1	1	...	17	29	75	87
...	...	6	5	2	4	3	1	4	3	...	1	9	8	3	1	...	...	12	20	41	44
...	...	2	4	2	6	8	11	3	5	...	...	3	2	...	1	2	...	28	29	56	65
...	...	...	5	...	3	...	2	...	1	...	...	1	5	...	...	...	...	....	7	1	27
...	...	6	5	4	4	17	11	4	2	4	1	6	4	2	1	...	...	25	12	70	42
...	...	...	3	...	2	...	1	...	1	...	3	...	5	...	...	...	...	....	11	....	27
...	...	6	5	4	5	20	13	10	8	...	4	8	9	6	...	...	1	33	43	98	98
...	...	1	5	2	4	...	11	...	1	2	1	7	7	1	...	...	...	19	18	34	53
...	...	3	2	4	1	9	4	...	...	4	3	12	8	2	...	2	...	10	13	53	37
...	...	1	5	2	2	5	3	...	4	...	...	11	11	3	4	1	...	11	15	34	49
...	2	4	8	...	6	17	7	3	2	5	2	15	12	...	...	2	1	24	30	84	91
1	...	34	29	20	18	30	26	14	6	12	3	26	62	4	7	9	3	70	52	289	260
1	...	82	112	44	37	73	91	26	38	27	14	71	56	16	11	14	16	238	234	724	708
...	...	3	5	2	4	6	9	...	1	1	1	5	3	...	1	...	1	12	24	31	53
...	...	2	2	4	5	5	4	1	2	...	1	1	4	1	1	1	...	10	14	29	38
...	1	11	16	...	8	14	20	5	7	4	...	9	13	1	...	3	2	36	43	87	117
...	1	5	2	...	2	1	3	...	...	2	...	2	2	1	...	...	...	3	11	18	26
...	...	4	3	5	3	9	9	2	1	5	1	9	8	4	1	2	...	23	13	73	48
...	...	...	1	...	1	1	2	...	...	...	1	...	2	...	...	1	...	2	6	4	13
...	...	7	12	4	6	4	4	1	...	5	1	10	10	5	2	...	...	28	27	74	72
1	...	18	19	6	5	11	21	8	3	7	5	11	17	3	2	1	1	62	66	141	150
8	15	511	573	246	317	548	556	220	210	183	103	528	586	127	101	66	63	1665	1760	4761	4878

DEATHS FROM ALL CAUSES REPORTED TO THE STATE BOARD OF ACCORDING TO CAUSE OF

TABLE NO. II.

SEX	M	F	M	F	M	F	M	F	M	F	M	F
AGE			Under 1	1	1 to 2		2 to 3		3 to 4		4 to 5	
I. GENERAL DISEASES												
Typhoid Fever	...	...	...	...	...	...	...	...	...	2	...	...
Small Pox	...	...	...	1	...	...	...	...	...	...	...	...
Measles	...	...	1	...	4	1	1	2	...	1	...	...
Scarlet Fever	...	...	...	1	2	3	2	2	4	1	4	1
Whooping Cough	...	...	1	5	...	1	...	...	...	...	...	...
Diphtheria	...	...	...	...	1	1	3	1	2	...	1	1
Croup	...	...	...	1	...	...	1	...	...	...	...	...
Grippe (Influenza)	...	...	2	...	...	...	...	...	...	...	...	...
Spotted (Tick) Fever	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	2	5	...	...	...	...	...	...	...	...
Septicaemia	...	...	3	1	...	1	...	...	...	...	...	...
Tubercle of the Lungs	...	...	2	...	...	1	2	...	...	1	1	...
Tubercle of Meninges	...	...	3	2	2	3	3	3	...	1	...	2
Tubercle of Peritoneum	...	...	1	1	...	...	...	1	...	...	...	...
Other Tuberculoses	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	1	...	...	...	1	...	...	1	...	...
Cancer of Stomach and Liver	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Peritoneum and Intestines	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Female Genital Organs	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Breast	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Skin	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Organs not Specified	...	...	...	...	...	...	...	...	...	...	1	...
Other Tumors	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatism, Acute Articular	...	...	...	1	...	...	...	...	...	...	1	...
Rheumatism, Chronic and Gout	...	...	...	...	...	...	...	...	...	...	...	...
Diabetes	...	...	...	...	1	...	1	...	...	...	...	1
Anaemia and Chlorosis	...	...	3	...	...	...	...	...	1	...	...	...
Alcholism, Acute and Chronic	...	...	...	...	...	...	...	...	...	...	...	...
Chronic Poisonings	...	...	...	...	...	...	...	...	...	...	...	...
Goitre	...	...	...	1	...	1	...	...	...	...	...	...
Addison's Disease	...	...	...	...	...	...	...	...	...	...	...	...
Hodgkin's Disease	...	...	...	...	...	...	...	...	...	...	...	...
Ether Anesthesia	...	...	...	...	...	...	...	...	...	...	...	...
Pellegra	...	...	...	...	...	...	...	...	...	...	...	...
II. DISEASES OF THE NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE												
Encephalitis	...	...	...	...	...	...	1	...	...	...	...	...
Meningitis, Simple	...	...	9	3	2	1	...	...	1	1	1	...
Meningitis, Cerebro Spinal	...	...	6	1	2	2	...	5	2	1	1	...
Cerebro Congestion and Hemorrage	...	...	5	1	...	...	...	...	...	...	...	...
Cerebral Softening	...	...	...	...	...	...	...	...	...	...	...	...
Paralysis	...	...	...	...	1	...	...	1	1	...	...	...
General Paralysis of Insane	...	...	...	...	...	...	...	...	...	...	...	...
Other forms of Mental Alienation	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy	...	...	1	1	...	...	...	...	...	...	...	...
Convulsions of Children	...	...	7	9	1	2	2	...	1	1	...	1
Chorea	...	...	...	...	...	...	...	...	...	...	...	...
Tetanus	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Nervous System	...	...	...	...	1	...	...	...	...	...	...	...
Diseases of Ear and Adenexa	...	...	...	...	...	...	...	...	...	...	...	...
Anterior Poliomyelitis	...	...	...	...	...	1	...	...	...	1	...	...

HEALTH FOR THE YEAR ENDING DECEMBER 31, 1914, ARRANGED DEATH, AGE, AND SEX.

TABLE NO II.

M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
5to10		10to15		15to20		20to30		30to40		40to50		50to60		60to70		70to80		Over 80		Total		Grand Total
4	1	1	...	6	3	16	2	16	2	4	...	2	1	...	...	1	...	...	1	50	12	62
...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2	2	4
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	9	4	13
2	2	1	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	15	13	28
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	7	8
8	6	1	2	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	17	12	29
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	4
...	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	2	5	5	10
...	2	...	...	...	...	...	1	2	...	1	...	...	...	1	...	...	...	...	...	4	3	7
...	...	...	...	...	1	...	1	4	1	3	...	3	...	2	1	1	...	1	...	16	9	25
3	...	...	...	1	...	5	9	5	6	6	1	5	2	3	...	2	...	...	...	33	20	53
2	3	4	3	9	4	40	17	72	27	74	7	52	4	20	2	6	1	...	...	284	70	354
2	...	...	...	2	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	12	13	25
...	1	...	...	...	1	1	1	3	2	3	...	1	...	...	...	...	...	...	...	9	7	16
...	...	1	...	1	1	3	2	2	1	...	1	...	2	...	...	...	...	...	...	7	7	14
...	...	...	1	2	...	...	...	3	1	...	...	...	...	2	...	...	...	...	...	9	3	12
...	...	...	...	...	...	...	1	4	...	10	4	13	8	15	12	9	9	...	3	51	37	88
...	...	...	...	...	...	...	1	1	2	...	3	2	2	6	2	3	3	...	...	12	13	25
...	...	...	...	...	...	...	...	...	5	...	8	...	7	...	4	...	2	...	1	....	27	27
...	...	...	...	...	...	...	...	...	2	...	6	...	2	...	2	...	...	...	2	....	14	14
...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	....	2
1	1	...	...	2	...	3	2	2	2	5	5	11	4	8	3	5	2	5	2	43	21	64
1	...	...	...	1	...	...	...	...	4	1	3	1	2	1	...	...	...	...	...	5	9	14
...	...	1	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	4	3	7
												1	...	1	...	...	...	...	...	2	....	2
1	...	...	3	2	1	1	1	5	2	2	7	4	6	3	4	...	2	...	...	20	27	47
...	...	...	...	...	2	1	3	3	2	...	2	1	4	2	4	1	...	...	...	12	17	29
...	...	...	...	...	...	7	1	16	3	14	1	7	3	12	...	2	...	...	...	58	8	66
...	...	...	...	...	...	2	1	3	...	2	...	...	...	1	...	...	...	...	...	8	1	9
...	...	...	...	...	...	...	1	1	2	...	1	1	1	...	...	...	...	...	...	2	7	9
...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	1	2
...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	2	....	2
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	....	1
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	....	1
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	....	2
1	1	...	1	1	...	3	1	2	1	2	...	...	...	1	...	1	...	...	...	24	9	33
1	...	...	1	...	1	...	1	1	1	...	...	...	1	...	...	...	...	...	...	13	14	27
...	...	...	...	1	1	2	...	3	6	10	6	15	12	23	16	33	16	17	5	109	63	172
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	...	...	...	...	...	...	...	...	6	...	1	...	4	...	7	2	20	3	23
...	...	...	...	...	...	1	...	9	1	9	4	10	...	...	2	1	...	1	...	31	7	38
...	...	...	...	...	...	5	...	2	...	3	2	5	1	8	3	6	2	3	...	32	8	40
1	...	1	...	2	1	3	3	1	1	1	1	3	...	2	...	...	...	...	...	15	7	22
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	13	24
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	1
...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	2	1	3
...	...	...	1	...	...	...	...	1	...	...	1	1	1	1	1	...	...	...	...	4	4	8
...	1	...	1	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	3	2	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	2	2

TABLE NO. II—Continued.

SEX	M	F	M	F	M	F	M	F	M	F	M	F
AGE			Under 1	1	1 to 2		2 to 3		3 to 4		4 to 5	
III. DISEASES OF THE CIRCULATORY SYSTEM												
Pericarditis	...	...	...	...	...	...	...	...	...	...	...	...
Endocarditis	...	...	...	...	...	...	...	...	1	...	...	1
Other Diseases of Heart	...	...	32	17	2	...	...	2	1	...	2	1
Dis. of Arteries (Atheroma, Aneurism)	...	...	...	...	...	...	...	...	...	...	...	...
Angina Pectoris	...	...	...	...	...	...	...	...	...	...	...	...
Embolism and Thrombosis	...	...	1	...	...	...	...	...	...	1	...	...
Diseases of Lymphatic System	...	...	...	...	...	...	...	...	...	...	...	...
Hemorrhages	...	...	11	6	...	...	...	1	...	...	...	...
IV. DISEASES OF RESPIRATORY SYSTEM												
Diseases of Larynx	...	...	...	1	1	1	2	...	...	...	1	...
Bronchitis, Acute	...	...	7	2	...	1	1	...	...	...	1	...
Bronchitis, Chronic	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	59	52	24	20	10	6	1	1	...	2
Pleurisy	...	...	...	...	...	...	...	...	...	...	...	...
Asthma	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Emphysema	...	...	...	1	...	...	...	...	...	...	...	...
Empyema	...	...	...	...	...	...	...	...	...	...	...	...
V. DISEASES OF DIGESTIVE SYSTEM												
Tonsilitis	...	...	...	1	...	...	...	...	1	...	...	...
Ulcer of Stomach	...	...	...	...	...	...	...	...	...	...	...	...
Other Disease of Stomach	...	...	3	2	1	...	...	...	...	...	...	...
Diarrhoea and Enteritis under 2	...	...	66	53	13	14	...	...	...	...	...	...
Diarrhoea and Enteritis Chronic	...	...	...	...	...	...	...	...	...	...	1	...
Diarrhoea and Enteritis over 2	...	...	...	...	...	...	11	4	3	3	1	1
Hernia and Intestinal Obstruction	...	...	6	2	1	...	...	...	1	2	1	...
Cirrhosis of Liver	...	...	...	...	...	...	...	...	...	...	...	...
Biliary Calculi	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Liver	...	...	3	...	...	...	1	...	...	...	...	...
Diseases of Spleen	...	...	...	...	...	...	...	...	...	...	...	...
Appendicitis and Abscess of Iliac Fosse	...	...	...	...	...	...	...	...	...	1	...	1
Peritonitis, Simple	...	...	1	3	...	...	...	...	...	...	...	...
VI. DISEASES OF THE GENITO URINARY SYSTEM AND ADENEXA												
Nephritis, Acute	...	...	1	1	...	...	2	...	...	...	...	...
Brights Disease	...	...	1	...	...	...	1	...	2	1	...	...
Disease of the Bladder	...	...	...	...	...	...	...	...	...	...	...	...
Disease of the Prostate	...	...	...	...	...	...	...	...	...	...	...	...

TABLE NO. II—Continued.

M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
5 to10		10to15		15to20		20to30		30to40		40to50		50to60		60to70		70to80		Over 80		Total		Grand Total
1	1	1	...	...	...	...	...	...	1	...	...	...	1	2	...	...	...	...	...	4	3	7
1	4	2	2	1	2	3	...	6	3	2	6	4	2	3	2	5	1	2	1	30	24	54
5	3	3	3	8	8	12	13	21	21	32	14	50	26	68	29	47	24	23	8	306	169	475
...	...	...	...	...	...	...	1	2	...	2	1	9	...	8	1	10	3	5	2	36	8	44
...	...	...	...	...	...	...	...	...	1	...	...	2	2	2	1	2	...	1	1	7	5	12
...	...	...	...	1	...	...	8	2	3	3	1	3	...	2	...	5	2	...	1	17	16	33
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	...	...	...	2	4	2	3	...	...	...	1	...	1	...	...	1	20	12	32
...	...	1	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	7	3	10
1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	2	5	...	16	6	22
...	...	...	...	...	...	...	...	...	...	1	...	5	...	1	...	6	3	1	1	14	4	18
10	3	3	2	7	3	30	5	38	11	46	11	41	14	30	17	24	20	13	8	336	175	511
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	...	...	1	...	1	...	3	1	2	...	2	...	3	...	...	1	12	2	14
...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	1	3
1	2	...	...	1	1	...	1	...	1	1	...	...	...	...	...	...	...	...	...	3	5	8
...	...	...	1	...	2	...	2	...	...	1	...	1	...	...	...	...	...	...	...	3	6	9
...	...	...	1	...	...	4	3	3	1	3	1	3	1	3	1	...	...	...	...	16	8	24
...	...	...	...	...	1	...	...	2	...	1	...	3	2	2	1	4	1	1	...	17	7	24
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	79	67	146
...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1	...	...	1	2	3	5
2	1	...	1	...	...	2	...	...	...	1	2	2	...	...	...	2	...	...	1	24	13	37
1	2	...	...	...	...	1	3	2	5	6	2	6	3	5	...	...	2	1	...	31	21	52
...	...	...	...	...	...	...	...	8	2	10	4	8	4	7	1	2	2	2	2	37	15	52
...	...	...	...	...	...	...	1	...	...	2	1	1	1	2	1	1	...	...	...	6	4	10
...	...	1	...	...	...	3	...	...	...	1	2	1	1	1	1	1	2	...	...	12	6	18
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
5	3	5	3	5	1	14	6	9	7	11	1	6	2	3	2	...	...	...	...	58	27	85
1	1	...	3	1	2	...	5	9	11	2	1	2	3	1	...	...	...	...	...	17	29	46
2	1	...	1	...	...	1	5	4	3	5	3	2	1	4	2	3	...	...	...	24	17	41
...	...	2	3	1	...	4	9	14	6	17	14	29	12	24	14	26	10	12	3	133	72	205
...	...	...	...	...	...	1	...	...	1	...	...	...	...	2	...	3	1	...	...	6	2	8
...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	...	3	...	...	...	7	....	7

TABLE NO. II—Continued.

SEX	M	F	M	F	M	F	M	F	M	F	M	F
AGE			Under 1	1	1 to 2		2 to 3		3 to 4		4 to 5	
VII. THE PUERPERAL STATE												
Accidents of Pregnancy	...	...	...	...	...	...	...	...	...	...	...	...
Accidents of Labor	...	...	...	...	...	...	...	...	...	...	...	...
Septicatmia, Puerperal	...	...	...	...	...	...	...	...	...	...	...	...
Albuminuria and Eclampsia	...	...	...	...	...	...	...	...	...	...	...	...
VIII. DISEASE OF SKIN AND CELLULAR TISSUES												
Gangrene	...	...	...	...	...	...	...	...	...	...	...	...
Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...
IX. EARLY INFANCY												
Congenital Debility, Icterus & Scleroma	...	...	176	154	1	...	...	1	...	...	...	...
X. OLD AGE												
Senility	...	...	...	...	...	...	...	...	...	...	...	...
XI. EFFECTIONS PRODUCED BY EXTERNAL CAUSES												
Suicide by Poisons	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by Hanging and Strangulation	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by Drowning	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by Firearms	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by Cutting Instruments	...	...	...	...	...	...	...	...	...	...	...	...
Other Suicides	...	...	...	...	...	...	...	...	...	...	...	...
Accidents with Firearms	...	...	...	...	...	...	...	...	...	1	...	...
Railroad Accidents	...	...	...	...	...	...	...	...	...	...	...	...
Accidents with Horses and Vehicles	...	...	1	...	...	...	...	1	...	...	...	2
Mine Accidents	...	...	...	...	...	...	...	...	...	...	...	...
Other Accidental Traumatisms	...	...	2	3	...	...	...	1	...	...	1	...
Burns and Scalds	...	...	2	...	1	...	1	2	...	1	1	...
Isolation and Freezing	...	...	...	...	...	...	...	...	...	...	...	...
Electrical (Other than Lightning)	...	...	...	...	...	...	...	...	...	...	...	...
Lightning	...	...	...	...	...	...	...	...	...	...	...	...
Accidental Drowning	...	...	1	...	4	1	3	...	...	...	1	...
Accidental Poisoning	...	...	2	1	...	2	...	...	1	...	...	...
Homicide	...	...	...	...	...	...	...	...	...	...	...	...
Legal Execution	...	...	...	...	...	...	...	...	...	...	...	...
Mill Accidents	...	...	...	...	...	...	...	...	...	...	...	...
Auto Accidents	...	...	...	...	...	...	...	...	...	...	...	...
Snake Bite	...	...	...	1	...	...	...	...	...	...	...	...
Sunstroke	...	...	1	...	...	...	...	...	...	...	...	...
XII. DEATHS FROM ILL-DEFINED CAUSES AND STILLBIRTHS												
Unspecified and Ill-Defined	...	...	16	16	1	...	1	...	...	1	...	...
Stillbirths	209	123	...	...	...	...	...	...	...	...	...	...
TOTALS	209	123	440	350	66	57	50	33	23	23	20	14

TABLE NO. II—Continued.

M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
5	to10	10	to15	15	to20	20	to30	30	to40	40	to50	50	to60	60	to70	70	to80	Over 80		Total		Grand Total
...	...	...	...	...	...	...	3	...	12	...	1	...	...	...	...	...	...	...	...	....	16	16
...	...	...	...	...	2	...	13	...	4	...	3	...	...	...	...	...	...	...	...	....	22	22
...	...	...	...	...	2	...	17	...	8	...	2	...	...	...	...	...	...	...	...	....	29	29
...	...	...	...	...	...	...	4	...	4	...	2	...	...	...	...	...	...	...	...	....	10	10
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	....	1	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	....	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	177	155	332
...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	4	11	9	24	27	40	40	80
...	...	...	...	1	2	10	2	7	2	5	1	3	1	2	...	...	1	...	...	28	9	37
...	...	...	...	...	...	2	1	...	...	1	...	3	...	...	...	...	...	...	...	6	1	7
...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	...	...	3	....	3
...	...	...	...	1	...	13	1	7	3	10	...	16	...	10	...	...	...	1	...	58	4	62
...	...	...	...	...	...	1	...	6	...	2	...	2	...	...	...	...	...	...	...	11	....	11
...	...	...	...	...	...	...	1	3	...	...	...	1	...	2	...	...	...	...	...	6	1	7
...	...	5	...	2	...	8	...	5	1	5	...	1	...	...	...	...	1	...	...	26	3	29
...	...	...	1	3	...	20	...	22	...	9	...	7	1	3	1	3	...	...	...	67	3	70
4	1	3	...	4	...	9	...	12	...	10	1	9	1	3	...	2	...	...	...	57	6	63
1	...	...	...	...	...	20	...	15	...	6	...	4	...	2	...	...	...	...	...	48	....	48
2	...	1	1	4	...	20	...	21	...	19	...	11	1	5	...	3	1	2	...	91	7	98
...	...	...	...	1	1	...	2	1	2	2	...	2	...	2	...	...	...	...	...	13	8	21
...	...	...	...	...	...	3	...	4	...	1	1	1	...	1	...	...	...	1	...	11	1	12
...	...	...	...	...	...	2	...	4	...	...	...	2	...	1	...	...	...	...	...	9	....	9
...	...	1	...	1	...	5	...	4	...	...	...	...	...	...	...	...	...	...	...	11	....	11
3	...	2	1	4	1	18	...	9	...	6	...	2	...	1	1	2	...	1	...	57	4	61
1	1	...	...	...	...	3	1	1	2	2	...	1	...	...	...	...	...	...	...	11	7	18
...	...	2	...	...	...	16	1	17	...	11	1	4	...	1	...	2	...	...	...	53	2	55
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	....	2
3	...	...	...	1	...	2	1	7	1	2	...	4	1	1	1	...	...	1	1	21	5	26
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	3	....	3
...	...	...	...	2	1	2	...	9	4	4	...	8	...	6	4	7	1	1	1	57	28	85
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	209	123	332
75	44	42	37	81	50	327	166	448	198	404	141	415	144	333	141	259	125	132	78	3324	1724	5048

DEATHS FROM ALL CAUSES REPORTED TO THE STATE BOARD OF
ACCORDING TO CAUSE OF

TABLE NO. III.

SEX	M	F	M	F	M	F	M	F	M	F	M	F
AGE			Under 1	1	1 to 2		2 to 3		3 to 4		4 to 5	
I. GENERAL DISEASES												
Typhoid Fever	...	...	...	...	...	...	...	...	2	...	...	...
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	1	2	2	...	2	...	1	...
Whooping Cough	...	...	3	6	1	2	...	...	2	1	...	...
Diphtheria	...	...	...	...	2	...	4	...	2	2	...	...
Croup	...	...	...	...	...	...	...	...	...	...	...	...
Grippe (Influenza)	...	...	2	...	...	1	...	...	...	...	...	...
Spotted (Tick) Fever	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	3	4	...	1	...	...	...	...	...	...
Septicaemia	...	...	3	1	...	1	1	...	1	...	...	...
Tubercle of the Lungs	...	...	2	3	1	...	...	1	...	...	...	1
Tubercle of Meninges	...	...	3	5	5	1	3	2	1	2	1	1
Tubercle of Peritoneum	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculoses	...	...	...	1	...	...	...	...	...	...	...	...
Syphilis	...	...	2	2	...	...	...	...	...	...	...	...
Cancer of Stomach and Liver	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Peritoneum and Intestines	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Female Genital Organs	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Breast	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Skin	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Organs not Specified	...	...	...	...	...	...	1	...	...	...	...	...
Other Tumors	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatism, Acute Articular	...	...	...	...	...	...	...	...	...	1	...	...
Rheumatism, Chronic and Gout	...	...	...	...	...	...	...	...	...	...	...	...
Diabetes	...	...	...	...	...	...	...	...	...	...	...	...
Anaemia and Chlorosis	...	...	1	...	...	...	...	...	1	1	...	...
Alcholism, Acute and Chronic	...	...	...	...	...	...	...	...	...	...	...	...
Chronic Poisonings	...	...	...	...	...	...	...	...	...	...	...	...
Goitre	...	...	...	...	...	...	...	...	...	...	...	...
Addison's Disease	...	...	...	...	...	...	...	...	...	...	...	...
Hodgkin's Disease	...	...	...	...	...	...	...	...	...	...	1	...
Paucreatitis	...	...	...	...	...	...	...	...	...	...	...	...
II. DISEASES OF THE NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis, Simple	...	...	3	5	5	3	...	...	...	...	...	1
Meningitis, Cerebro Spinal	...	...	5	4	...	...	...	1	...	...	1	...
Cerebro Congestion and Hemorrage	...	...	3	4	...	...	...	...	...	...	...	...
Cerebral Softening	...	...	...	...	...	...	...	...	...	...	1	...
Paralysis	...	...	...	...	...	...	...	...	...	...	...	...
General Paralysis of Insane	...	...	...	...	...	...	...	...	...	...	...	...
Other forms of Mental Alienation	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions of Children	...	...	14	6	2	2	...	1	...	...	...	...
Chorea	...	...	...	...	...	...	...	...	...	...	...	...
Tetanus	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Nervous System	...	...	1	...	...	1	...	...	...	...	...	...
Diseases of Ear and Adenexa	...	...	1	1	2	...	...	...	...	...	...	...
Anterior Poliomyelitis	...	...	...	...	...	...	...	...	...	...	1	1

HEALTH FOR THE YEAR ENDING DECEMBER 31, 1915, ARRANGED DEATH, AGE, AND SEX.

TABLE NO. III.

5 to10		10to15		15to20		20to30		30to40		40to50		50to60		60to70		70to80		Over 80		Total		Grand Total
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
...	2	3	1	7	1	12	5	11	4	1	...	4	1	3	...	...	...	...	...	43	14	57
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	....	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	5	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	9	15
5	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	14	3	17
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	...	...	...	1	...	...	...	1	...	2	1	1	2	1	5	6	10	13	23
...	...	...	...	1	...	2	...	1	...	2	...	...	...	...	1	1	...	...	...	7	1	8
...	...	...	...	...	...	...	1	...	2	1	...	1	...	2	...	...	...	...	...	7	8	15
1	1	1	...	2	1	7	7	4	11	8	3	9	...	1	1	2	3	...	...	40	29	69
1	1	3	2	5	12	54	26	75	20	86	10	54	4	23	1	3	...	...	1	307	82	389
1	3	1	...	1	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	18	15	33
...	...	1	...	1	...	3	1	1	1	1	...	2	...	...	...	...	...	...	1	9	3	12
...	...	...	...	1	...	1	2	1	1	2	...	1	...	...	...	...	...	...	...	6	4	10
...	...	...	...	...	...	1	...	1	1	...	...	...	...	1	...	...	...	...	...	5	3	8
...	...	...	...	...	...	...	...	3	4	10	10	11	12	18	10	11	6	2	1	55	43	98
...	...	...	...	...	...	...	1	...	1	4	3	2	...	3	2	4	2	1	1	14	10	24
...	...	...	...	...	...	...	...	...	7	...	9	...	11	...	6	...	2	...	...	....	35	35
...	...	...	...	...	...	...	...	...	1	...	2	...	5	...	3	...	...	...	...	....	11	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	1	2	...	1	2	...	3	...	10	1	13	1	2	1	2	2	34	8	42
...	...	...	...	...	...	1	...	...	3	...	2	2	3	1	1	1	1	...	...	5	10	15
1	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	3	2	5
...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	...	2	1	3
2	2	...	2	2	2	4	...	1	1	5	2	9	6	4	4	3	3	2	...	32	22	54
1	...	...	...	...	...	1	2	2	...	3	2	7	5	...	5	...	...	...	...	16	15	31
...	...	...	...	...	...	3	...	12	...	19	...	17	2	4	...	5	...	1	...	61	2	63
...	...	...	...	...	...	1	...	...	2	1	...	2	...	...	...	...	...	...	...	4	2	6
1	...	...	...	...	...	...	1	1	1	...	2	...	1	...	...	...	...	...	...	2	5	7
...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	3	1	4
...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	3	....	3
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	....	1	1
...	...	...	...	...	...	...	...	...	...	...	...											
...	...	...	...	...	...	...	...	...	...	...	...											
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	1
3	...	...	...	1	1	2	1	2	...	1	1	4	...	...	...	...	...	...	...	21	12	33
1	1	...	...	...	...	1	...	3	1	...	1	...	2	...	...	...	...	...	...	11	10	21
...	...	1	...	...	...	5	3	4	6	8	4	33	6	33	19	40	19	11	10	138	71	209
...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	1	...	...	4	1	5
...	...	...	...	1	...	...	1	1	...	1	...	1	4	1	...	4	4	1	...	10	9	19
...	...	...	...	...	...	2	...	5	1	10	...	9	1	...	1	1	...	...	...	27	3	30
...	...	...	...	...	...	1	1	5	...	4	3	4	2	2	1	2	...	...	...	18	7	25
...	...	2	...	...	2	3	3	2	2	1	2	1	...	...	...	...	...	...	...	9	9	18
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	9	26
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	2	....	2
1	1	...	...	...	...	...	...	...	1	2	...	2	1	3	3	...	...	3	...	12	7	19
...	...	...	...	...	1	1	1	1	1	1	...	3	...	...	...	1	1	...	...	11	6	17
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	1	1

TABLE NO. III—Continued.

SEX	M	F	M	F	M	F	M	F	M	F	M	F
AGE			Under 1	Under 1	1 to 2		2 to 3		3 to 4		4 to 5	
III.												
DISEASES OF THE CIRCULATORY SYSTEM												
Pericarditis	...	...	...	...	...	...	...	...	...	...	...	...
Endocarditis	...	...	1	...	...	...	...	...	...	...	...	...
Other Diseases of Heart	...	...	34	14	...	...	...	...	...	...	...	...
Dis. of Arteries (Atehroma, Aneurism)	...	...	...	...	...	...	...	...	...	...	...	...
Angina Pectoris	...	...	...	...	...	...	...	...	...	...	...	...
Embolism and Thrombosis	...	...	...	1	...	...	...	...	...	...	...	...
Diseases of Lymphatic System	...	...	...	...	...	...	...	...	...	...	...	...
Hemorrhages	...	...	8	2	1	...	...	...	...	...	...	...
IV.												
DISEASES OF RESPIRATORY SYSTEM												
Diseases of Larynx	...	...	1	...	...	...	...	1	1	...	...	...
Bronchitis, Acute	...	...	11	10	1	2	...	...	1	...	...	...
Bronchitis, Chronic	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	86	52	11	11	3	6	...	2	4	...
Pleurisy	...	...	...	...	...	...	...	...	...	1	...	...
Asthma	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Emphysema	...	...	...	...	...	...	...	...	...	...	...	...
Empyema	...	...	...	...	...	...	...	...	...	...	1	...
V.												
DISEASES OF DIGESTIVE SYSTEM												
Tonsilitis	...	...	...	1	...	...	...	...	...	...	...	...
Ulcer of Stomach	...	...	...	...	...	...	...	...	...	...	...	...
Other Disease of Stomach	...	...	2	3	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis under 2	...	...	35	30	9	8	...	...	...	...	...	...
Diarrhoea and Enteritis Chronic	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis over 2	...	...	...	...	...	...	4	6	...	2	...	...
Hernia and Intestinal Obstruction	...	...	10	3	...	1	3	...	...	...	1	...
Cirrhosis of Liver	...	...	...	...	...	...	...	...	...	...	...	...
Biliary Calculi	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Liver	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Spleen	...	...	...	...	...	...	...	...	...	...	...	...
Appendicitis and Abscess of Iliac Fosse	...	...	...	...	2	...	1	...	...	1	2	1
Peritonitis, Simple	...	...	4	2	...	...	...	...	...	...	1	...
VI.												
DISEASES OF THE GENITO URINARY SYSTEM AND ADENEXA												
Nephritis, Acute	...	...	5	3	1	...	...	...	...	1	...	...
Brights Disease	...	...	...	...	1	...	...	...	...	1	...	...
Disease of the Bladder	...	...	...	...	...	...	...	...	...	...	...	...
Disease of the Prostate	...	...	...	...	...	...	...	...	...	...	...	...

TABLE NO. III—Continued.

5 to10		10to15		15to20		20to30		30to40		40to50		50to60		60to70		70to80		Over 80		Total		Grand Total
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
...	...	...	...	...	...	...	...	...	...	1	2	3	...	...	1	...	...	1	...	5	3	8
3	2	3	4	5	2	4	2	5	4	6	1	5	1	7	5	4	2	1	1	44	24	68
5	4	4	2	3	5	9	14	19	24	37	22	61	25	58	24	44	29	12	9	286	172	458
...	...	...	...	...	...	...	...	1	...	1	2	5	...	10	1	10	5	12	4	39	12	51
...	...	...	...	...	...	...	...	1	...	...	...	4	...	7	5	3	2	...	...	15	7	22
...	...	...	...	...	...	...	4	2	3	2	1	1	5	...	1	3	2	...	...	8	17	25
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	2	5	...	4	1	2	1	1	...	1	...	...	...	23	6	29
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3
...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	14	13	27
...	...	...	...	...	...	...	...	...	...	3	...	6	...	1	1	6	6	3	2	19	9	28
4	5	3	2	1	4	34	14	41	17	51	18	52	18	45	15	26	25	15	8	376	197	573
...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	2	2	4
...	...	...	...	...	...	...	...	1	...	2	...	2	...	...	1	...	...	1	...	6	1	7
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	....	1
...	1	...	...	...	...	...	4	...	...	...	1	1	...	1	...	...	...	...	...	3	6	9
1	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	...	2	4	6
...	...	...	...	...	...	7	1	9	...	7	...	2	2	3	1	2	...	1	...	31	4	35
...	...	...	...	...	...	1	1	2	1	2	1	2	2	1	3	2	3	1	...	13	14	27
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	44	38	82
...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	...	1	...	...	...	4	....	4
2	1	...	1	...	...	...	...	...	...	...	...	...	2	1	1	...	1	...	...	7	14	21
...	1	...	...	1	...	4	4	3	5	3	2	1	5	5	3	3	6	...	1	34	31	65
...	...	...	1	...	...	1	1	5	2	7	2	14	3	4	3	3	1	...	...	34	13	47
...	...	...	...	...	...	...	...	...	...	1	...	2	1	...	...	...	1	...	...	3	2	5
...	...	...	...	...	...	...	2	1	2	1	4	3	2	...	3	...	2	2	...	7	15	22
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	6	2	10	3	4	7	6	10	8	7	...	6	2	1	3	...	1	...	...	45	42	87
1	1	2	2	1	1	3	7	1	5	4	2	...	1	3	1	1	...	...	...	21	22	43
1	1	1	...	1	1	5	2	2	4	3	7	2	1	4	1	2	2	...	1	27	24	51
...	...	...	1	1	2	7	5	17	9	29	11	34	19	42	24	38	6	15	4	184	82	266
...	...	...	...	...	...	2	...	...	...	1	...	1	...	1	...	4	...	3	...	12	....	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	1	...	4	....	4

TABLE NO. III—Continued.

SEX	M	F	M	F	M	F	M	F	M	F	M	F
AGE			Under 1	1	1 to 2		2 to 3		3 to 4		4 to 5	
VII. THE PUERPERAL STATE												
Accidents of Pregnancy	...	...	...	...	...	...	...	...	...	...	...	...
Accidents of Labor	...	...	...	...	...	...	...	...	...	...	...	...
Septicatmia, Puerperal	...	...	...	...	...	...	...	...	...	...	...	...
Albuminuria and Eclampsia	...	...	...	...	...	...	...	...	...	...	...	...
VIII. DISEASE OF SKIN AND CELLULAR TISSUES												
Gangrene	...	...	...	...	...	...	...	...	...	...	...	...
Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...
IX. EARLY INFANCY												
Congenital Debility, Icterus & Scleroma	...	...	186	164	2	1	...	...	...	...	...	...
X. OLD AGE												
Senility	...	...	...	...	...	...	...	...	...	...	...	...
XI. EFFECTIONS PRODUCED BY EXTERNAL CAUSES												
Suicide by Poisons	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by Hanging and Strangulation	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by Drowningg	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by Firearms	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by Cutting Instruments	...	...	...	...	...	...	...	...	...	...	...	...
Other Suicides	...	...	...	...	...	...	...	...	...	...	...	...
Accidents with Firearms	...	...	...	...	...	...	...	...	...	...	...	...
Railroad Accidents	...	...	...	...	...	1	...	...	...	...	...	...
Accidents with Horses and Vehicles	...	...	1	...	1	...	...	...	2	...	1	...
Mine Accidents	...	...	...	...	...	...	...	...	...	...	...	...
Other Accidental Traumatisms	...	...	4	2	1	...	1	...	3	...	...	...
Burns and Scalds	...	...	...	1	4	2	2	1	2	3	1	...
Isolation and Freezing	...	...	...	...	...	...	1	...	...	...	...	...
Electrical (Other than Lightning)	...	...	...	...	...	...	...	...	...	...	...	...
Lightning	...	...	...	...	...	...	...	...	...	...	...	...
Accidental Drowning	...	...	...	...	3	2	...	2	...	1	2	...
Accidental Poisoning	...	...	...	1	2	...	...	...	...	...	...	...
Homicide	...	...	1	...	...	...	...	...	...	...	...	...
Legal Execution	...	...	...	...	...	...	...	...	...	...	...	...
Mill Accidents	...	...	...	...	...	...	...	...	...	...	...	...
Auto Accidents	...	...	...	...	...	...	...	...	...	...	...	...
Snake Bite	...	...	...	...	1	...	...	...	...	...	...	...
XII. DEATHS FROM ILL-DEFINED CAUSES AND STILLBIRTHS												
Unspecified and Ill-Defined	...	...	10	4	1	1	...	...	...	1	...	...
Stillbirths	217	150	...	...	...	...	...	...	...	...	...	...
TOTALS	217	150	445	335	60	43	26	22	20	20	19	5

TABLE NO. III—Continued.

M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
5 to10		10to15		15to20		20to30		30to40		40to50		50to60		60to70		70to80		Over 80		Total		Grand Total
...	...	...	...	...	...	...	8	...	5	...	1	...	...	...	...	...	...	...	...	....	14	14
...	...	...	...	...	...	...	4	...	7	...	...	...	...	...	...	...	...	...	...	....	11	11
...	...	...	...	...	3	...	13	...	5	...	...	...	...	...	...	...	...	...	...	....	21	21
...	...	...	...	...	3	...	2	...	10	...	2	...	...	...	...	...	...	...	...	....	17	17
...	...	...	...	...	...	...	...	1	...	3	1	...	...	...	...	...	...	...	...	4	1	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	188	165	353
...	...	...	...	...	...	...	...	...	...	...	...	3	1	13	2	26	16	33	29	75	48	123
...	...	...	...	...	1	3	5	5	...	1	1	3	1	2	...	...	...	...	...	14	8	22
...	...	...	...	...	...	1	...	2	1	4	...	2	...	1	...	...	...	...	...	10	1	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	1	...	9	2	14	3	9	...	4	...	5	...	...	...	2	...	44	5	49
...	...	...	...	...	...	2	...	2	...	3	...	4	...	3	...	1	...	...	...	15	....	15
...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	4	....	4
4	1	1	1	3	1	7	...	6	...	...	...	1	...	...	...	...	...	...	...	22	3	25
2	...	3	...	2	...	23	...	24	...	21	...	15	...	2	...	...	...	...	...	92	1	93
4	...	5	1	2	...	18	1	12	1	12	3	6	1	2	1	2	...	...	...	68	8	76
...	...	...	...	2	...	15	...	27	...	22	...	5	...	2	...	1	...	...	...	74	....	74
...	...	6	...	2	...	11	...	26	1	10	...	8	...	5	1	4	1	1	2	82	7	89
2	...	...	...	...	...	1	3	2	2	3	1	...	...	1	2	1	...	...	...	19	15	34
...	...	...	...	...	...	...	...	2	...	2	...	1	...	...	...	...	...	...	...	6	....	6
...	...	...	...	1	...	4	...	4	...	2	...	...	...	...	...	...	...	...	...	11	....	11
...	...	...	...	...	...	4	...	7	...	6	...	2	...	2	...	...	...	...	...	21	....	21
3	...	2	...	8	2	10	1	4	2	9	...	3	1	1	...	...	...	...	...	45	11	56
1	...	...	...	...	...	1	2	1	1	...	...	2	...	1	...	1	...	...	...	9	4	13
...	...	...	...	1	...	13	2	12	1	11	...	8	...	1	...	1	...	...	...	48	3	51
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
2	1	1	1	1	3	6	1	8	1	3	...	4	3	1	...	...	...	...	...	26	10	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	....	1
...	...	...	...	...	...	...	...	8	2	3	...	10	1	9	3	4	2	...	1	45	15	60
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	217	150	367
58	39	46	32	63	56	324	173	437	199	476	144	484	169	363	167	278	157	133	85	3449	1796	5245

BIRTHS (EXCLUSIVE OF STILLBIRTHS) REPORTED TO THE STATE BOARD OF HEALTH DURING THE TWO YEARS ENDING DECEMBER 31, 1915.

TABLE NO. IV.

	Males 1914......	Males 1915......	Females 1914...	Females 1915...	Totals 1914......	Totals 1915......
Beaverhead	78	74	73	54	151	128
Big Horn	16	20	17	21	33	41
Blaine	90	103	100	97	190	200
Broadwater	22	39	34	37	56	76
Carbon	170	185	153	154	323	339
Cascade (Excl. of)	137	118	129	114	266	232
Great Falls	320	364	340	324	660	688
Chouteau	94	122	95	125	189	247
Custer	163	154	187	143	350	297
Dawson	211	161	174	165	385	326
Deer Lodge (Excl. of	6	14	8	10	14	24
Anaconda	137	117	132	141	269	258
Fallon	51	78	50	63	101	141
Fergus	221	294	196	267	417	561
Flathead (Excl. of)	108	129	101	141	209	270
Kalispell	86	80	81	99	167	179
Gallatin (Excl. of)	116	128	98	119	214	247
Bozeman	80	105	73	96	153	201
Granite	20	27	31	19	51	46
Hill	197	188	192	224	*389	412
Jefferson	38	36	25	37	63	73
Lewis and Clark (Excl. of)	61	76	65	59	126	135
Helena	161	134	130	155	291	289
Lincoln	54	66	41	47	95	113
Madison	71	62	68	45	139	107
Meagher	77	99	77	83	154	182
Mineral	5	19	5	12	10	31
Missoula (Excl. of)	64	66	52	65	116	131
Missoula City	157	145	152	133	309	278
Musselshell	137	169	108	154	245	323
Park (Excl. of)	33	42	41	47	74	89
Livingston	87	93	80	76	167	169
Phillips	....	69	....	64	....	133
Powell	60	53	50	55	110	108
Prairie	....	40	....	24	....	64
Ravalli	133	112	107	111	240	223
Richland	33	100	29	103	62	203
Rosebud	53	65	36	61	89	126
Sanders	35	55	33	45	68	100
Sheridan	183	252	160	173	343	425
Silver Bow (Excl. of)	217	172	197	185	414	357
Butte	516	466	436	482	952	948
Stillwater	48	74	38	59	86	133
Sweet Grass	49	44	47	55	96	99
Teton	131	146	137	148	268	294
Toole	22	47	21	38	43	85
Valley	115	112	99	110	214	222
Wibaux	6	27	8	30	14	57
Yellowstone (Excl. of)	135	155	122	152	257	307
Billings	167	211	170	204	337	415
TOTALS	5171	5707	4798	5425	9969	11132
Total Deaths					5048	5245
Excess of Births over Deaths					4921	5887

*Stillbirths 1914 371
Stillbirths 1915 396

FOOD AND DRUG DEPARTMENT

Hotel Regulations.

The Food and Drug Law requires hotels, restaurants, lunch counters, dining cars, meat markets, slaughterhouses, bakeries, confectioneries and dairies to obtain licenses from the State Board of Health, and it gives the State Board of Health authority to make regulations governing the sanitary conditions of such places.

In accord with the provisions of this law, at a meeting of the State Board of Health held April 1st, 1915. the following hotel regulations were passed. On account of the fact that we have no State Inspector of hotels, the inspection work must be done by the Local and County Health Officers.

REGULATIONS FOR HOTELS.

Regulation 1. Suggestions to Guests. These rules and regulations are designed to give you the maximum safety, comfort and health protection that a hotel or restaurant will reasonably permit. The management, however, must have your hearty assistance and cooperation to conduct this establishment in a satisfactory manner. You should use the property of the hotel or restaurant with the same care as if it were in your own homes. The use of wash bowls in sleeping rooms for urinals; towels and bedding to shine your shoes; expectorating on floors, walls or carpets; or other equally filthy practices should be strongly condemned by all persons who desire to improve living conditions in our hotels or restaurants.

Regulation 2. Construction. Every hotel and restaurant in this State shall be conducted in every department in a manner most conducive to the protection of the health, comfort and safety of its guests, and it shall be constructed, equipped and maintained with efficient plumbing, ventilation and lighting.

Regulation 3. Lavatories and Toilets. (a) All hotels, in cities, towns or villages where a system of water works and sewers, adajcent to the property is maintained for public use, shall on or before January 1st, 1916, be equipped with suitable lavatories and toilet facilities for the accommodation of its guests. The sewer must be connected with the public sewer system.

(b) Each hotel shall be provided with a public washroom, which must be supplied with clean individual towels or paper towels. The common or roller towel is absolutely prohibited.

Regulation 4. Outside Toilets. (a)) All hotels in cities, towns or villages not having a public sewer system or water works, shall have properly constructed privies, vaults or other sanitary devices, which shall always be kept clean. properly ventilated and well screened from insects and rodents.

(b) A wall or partition between the apartments must be tight. A separate apartment with separate entrance properly designated and screened from public view, must be provided for each sex. All privy doors shall be self-closing.

(c) Where septic tanks are installed, they must be constructed according to plans approved by the State Board of Health.

Regulation 5. Sleeping Accommodations. (a) Every sleeping room shall be of sufficient size to afford at least 400 cubic feet of air space for each occupant over twelve years of age, and 200 cubic feet for each occupant under twelve years of age. No greater number of occupants than thus established shall be permitted to sleep in any one room.

Provided that this regulation shall not apply in cases of emergency, where the change is approved by the local health officer.

(b) Sleeping rooms must be kept in good repair. The ceiling, walls and floors shall be free from dirt.

(c) No room shall be used for a sleeping room in any hotel which does not have an adequate opening, other than a transome over the door, to the outside of the building, or to well ventilated light wells, air shafts, courts or hallways. Light wells, air shafts and courts in such hotels must be open at the top, or provided with approved ventilators to furnish proper ventilation.

NOTE: In rooms having an outside window, or window opening on a well ventilated light well, air shaft or court, proper ventilation can be secured if the window is opened at top and bottom, and an adjustable shield is placed at the bottom to prevent drafts.

(d) At least one window in each sleeping room must be so constructed to permit it to be raised from the bottom or lowered from the top at any time. If storm windows are used, at least one for each sleeping room shall be either suspended from the top or hinged from the sides, so that it can be opened and closed readily.

Regulation 6. Bedding. (a) All hotels shall hereafter provide each bed, bunk, cot or other sleeping place for the use of transient guests with white cotton or linen pillow slips, top and under sheets, also mattress, and a reasonably sufficient quantity of bedding.

(b) The under sheet to be of sufficient size to completely cover the mattress and fold under on sides and ends.

(c) The top sheet must be at least of equal width, and on and after January 1, 1916, it must be not less than 96 inches long, after being laundered.

(d) The long top sheet is to be folded back at the head of the bed so as to cover all top coverings, at least twelve inches.

(e) All bedding including mattresses, quilts, blankets, pillows, sheets and comforts used in any hotel, must be thoroughly aired and kept clean. No bedding shall be used which is worn out and unfit for further use. Pillow slips and sheets must be washed and ironed as often as they shall be assigned to a different guest.

NOTE: Bed quilts are difficult to wash and keep clean and with the best of care they cannot be kept in proper condition. When they become worn they are especially objectionable. All bed covers should be made of washable material. Washable blankets and bedspreads should, whenever possible, be substituted for quilts. Such changes are earnestly recommended.

Regulation 7. Cummunicable Diseases. Whenever a room in any hotel has been occupied by a guest ill with a communicable disease, it shall be thoroughly fumigated and disinfected in accordance with the rules of the State Board of Health, before being occupied by another guest.

Regulation 8. Premises. All premises connected with, or used by, any hotel or restaurant, shall be kept in a sanitary condition, and it shall be the duty of the local and County Health Officer, either upon his own initiative, or upon the complaint of any citizen, to take such action as may be necessary to abate any nuisance, source of filth, or cause of sickness, existing on the premises.

Regulation 9. General Provisions. (a) The use of the common drinking cup is prohibited in all hotels, restaurants, lodging houses and other public places.

(b) It shall be unlawful for any person, firm or corporation to sweep, or permit sweeping in hotels, restaurants, and other public places where the public is invited, unless the floor is first sprinkled with water, moist sawdust or other substance to prevent the raising of dust. When vacuum cleaners, or properly filled resrvoir dustless brushes are used, the sprinkling or use of moist sawdust is not required.

(c) All floors and interior woodwork in hotels and restaurants shall be cleaned as often as may be necessary to keep them in a sanitary condition.

(d) All cuspidors wherever used, must be cleaned daily and kept free from odor.

Regulation 10. No room infested with bedbugs or vermin of any kind shall be rented to any guest for sleeping purposes.

Regulation 11. Inspections. All hotels, restaurants and lunch counters must be inspected each month by local or county health officers, or his deputy, and when inspected must be scored according to the score card, which is a part of these regulations.

When the score of any hotel, restaurant or lunch counter falls below 70, but reaches 60 or more, the owner or lessee of such hotel, restaurant or lunch counter will be sent a warning notice, and if on subsequent inspection the score again falls below 70, or if at any time the score falls below 60, the license of said owner or lessee shall be revoked by the State Board of Health. Before the revocation of any license, the licensee shall have the privilege of appearing before the State Board of Health to show cause why his license should not be revoked.

Regulation 12. Posting Regulations. These regulations must be posted in a conspicuous place in every hotel.

Much better service could be given to the State if we had a special hotel inspector. On the first inspection of the hotels after the issuance of the above regulations the following score card was issued.

STATE OF MONTANA

DEPARTMENT OF PUBLIC HEALTH

ANNUAL SCORE CARD FOR HOTELS

Name of Owner or Proprietor ....

Street and Number...................... City or Town ....

Name of Hotel............................ No. of sleeping rooms..............

CONSTRUCTION

Brick, stone, cement, plaster, frame........ Fireproof ....

BED ROOMS

		Perfect	Allowed
1.	Walls and ceilings are..........well papered, painted, kalsomined and are..................clean	2	....
2.	Floors are composed of........................and are in (Wood, tile, cement) good, fair, poor condition	2	....
3.	Mattresses, quilts, blankets, pillows, etc., are......... .... clean	5	....
4.	Clean sheets, pillow-cases, towels, etc., are............ ....provided for each guest	5	....
5.	Length of top sheets in use...............inches...........	3	....
6.	No. of rooms not provided with, or having access to fire escapes	5	....
7.	No. of rooms invested with vermin, bed-bugs, etc........	5	....
8.	Number of rooms not having proper ventilation...........	10	....
9.	HEATING—Steam, hot water, hot air, stoves.............	4	....
10.	LIGHTING—Electric, gas, oil	4	....
	PLUMBING		
(a)	SEWAGE DISPOSAL—Sanitary sewer, cesspool, septic tank, open drain	5	....
(b)	Sewer pipes are...........properly trapped and ventilated	5	....
(c)	Kind of toilets provided: Flush bowls, outside vaults,......		....
(d)	If flush bowls, are they kept clean	5	....
(e)	If outside vaults, are they properly constructed......... flytight.........and kept in sanitary condition...........	5	....
(f)	When last cleaned .... (Give date)	5	....
	WASH ROOMS		
11.	Is there a public wash room................................	5	....
12.	Is it kept in a clean and sanitary condition	5	....
13.	Towels: (a) Paper; (b) individual; (c) roller; ((d) common, towel used	10	....
14.	(a) Sanitary fountain; (b) paper cups; (c) common public cups, used	10	....

This score card is intended for the annual scoring of hotels and is adopted under Section 10, Chapter 130, Session Laws, 1911, and is therefore a part of the laws.

It shall be the duty of each health officer to score all hotels within his district according to this score card as soon as possible after January 1st of each year, and to immediately score any new hotels that may open during the year, and forward the same to this office.

As distinguished from rooming houses, a Hotel has been defined by the Attorney General as "a place kept for the entertainment of casual guests." (Opinions of Attorney General, 1910–12.)

Remarks: ....

....

....

....

....

....

....

....

....

....

....

Inspection made on............................, 191.....

....
(Signature of Inspector)

....
(Signature of Proprietor or Employee)

This Card to Be Filled Out With Ink.

NUMBER OF INSPECTIONS REPORTED BY HEALTH OFFICERS OF THE STATE BOARD OF HEALTH FOR THE YEAR 1915, AND FOR 1916 UP TO AND INCLUDING OCTOBER, ARRANGED ACCORDING TO COUNTIES AND PRINCIPAL CITIES.

	Dairies		Hotels, Restaurants and Lunch Counters		Confectionery and Bake Shops		Meat Markets and Slaughter Houses		Other Places of Business		Hotels (Rooms Only)		Total for 1915	Total for 1916	Grand total
	1915	1916	1915	1916	1915	1916	1915	1916	1915	1916	1915	1916			
Beaverhead	5	....	23	23	3	2	11	7	....	1	....	9	42	42	84
Big Horn	....	....	9	4	1	1	3	2	....	....	....	....	13	7	20
Blaine	11	9	127	116	24	10	50	39	127	98	....	10	339	282	621
Broadwater	....	....	....	....	....	....	....	....	....	....	....	....	......	......	......
Carbon	8	2	100	93	20	10	76	43	98	67	....	8	302	223	525
Cascade, Exclu. of	127	87	14	8	3	....	21	23	39	43	....	12	204	173	377
Great Falls	18	....	357	237	59	69	97	114	6	....	....	35	537	455	992
Chouteau	27	3	143	59	14	....	37	9	39	45	....	....	260	116	376
Custer	....	....	62	30	5	5	34	....	....	....	....	....	101	35	136
Dawson	26	70	70	129	14	33	22	52	....	4	....	11	132	299	431
Deer Lodge, Exclu. of	210	196	....	....	....	....	30	20	....	....	....	....	240	216	456
Anaconda	25	3	220	187	57	50	94	101	324	270	....	....	720	611	1331
Fallon	1	....	11	10	1	1	2	6	29	2	....	....	44	19	63
Fergus	15	8	222	167	43	11	80	40	39	....	....	23	399	249	648
Flathead, Exclu. of	20	21	52	47	1	3	20	14	....	2	....	9	93	96	189
Kalispell	....	....	26	34	3	6	13	8	15	7	....	....	57	55	112
Gallatin, Exclu. of	144	84	161	93	12	11	153	107	101	80	....	....	571	375	946
Bozeman	1	10	95	77	57	43	58	56	180	152	....	3	391	341	732
Granite	23	7	21	28	....	3	18	14	1	3	....	3	63	58	121
Hill	22	12	266	257	14	35	111	98	11	41	....	10	424	453	877
Jefferson	2	....	58	42	4	....	18	11	....	....	....	2	82	55	137
Lewis & C., Exclu. of	12	....	....	....	....	....	1	....	....	....	....	....	13	......	13
Helena	....	1	250	97	25	16	86	30	8	1	....	9	369	154	523
Lincoln	....	....	80	94	25	13	11	33	....	14	....	11	116	165	281
Madison	146	28	145	117	....	4	76	85	130	71	....	30	497	335	832
Meagher	37	6	174	108	18	11	119	47	68	61	....	10	416	243	659
Mineral	2	....	62	12	....	....	25	2	....	....	....	....	89	14	103
Missoula, Exclu. of	177	136	118	117	13	14	75	45	90	77	....	....	473	389	862
Missoula City	60	24	349	224	118	75	139	103	431	321	....	10	1097	757	1854
Musselshell	2	....	59	38	5	4	24	19	19	8	....	1	109	70	179
Park, Exclu. of	110	17	138	40	....	2	81	22	....	....	....	....	329	81	410
Livingston	289	163	166	127	51	52	49	40	222	166	....	17	777	565	1342
Phillips	....	....	96	60	1	....	21	13	13	....	....	2	131	75	206
Powell	....	....	....	....	....	....	....	....	....	....	....	....	......	......	......
Prairie	....	....	69	48	6	7	31	30	38	12	....	....	144	97	241
Ravalli	39	26	85	63	2	13	79	87	93	88	....	8	298	285	583
Richland	....	....	16	13	4	2	8	6	5	....	....	....	33	21	54
Rosebud	....	1	27	20	11	10	10	12	22	15	....	8	70	66	136
Sanders	35	28	203	177	16	11	83	77	48	9	....	8	385	310	695
Sheridan	22	....	239	489	36	61	137	214	263	281	....	141	697	1186	1883
Silver Bow, Exclu. of	693	412	103	106	20	19	173	153	384	319	....	10	1373	1019	2392
Butte	....	....	774	907	209	155	494	468	1319	1101	....	....	2796	2631	5427
Stillwater	1	....	24	2	2	....	9	....	22	3	....	3	58	8	66
Sweet Grass	1	2	15	17	3	3	12	9	....	....	....	....	31	31	62
Teton	46	12	94	44	15	12	27	12	48	20	....	10	230	110	340
Toole	....	2	88	102	2	....	16	16	58	58	....	5	164	183	347
Valley	51	15	113	103	9	4	32	45	8	5	....	....	213	172	385
Wibaux	....	....	35	13	6	3	14	4	11	4	....	....	66	24	90
Yellowstone, Exclu. of	45	76	62	106	3	6	26	50	27	115	....	5	163	358	521
Billings	25	....	150	268	31	51	55	85	2	34	....	15	263	453	716
Total	4278	1461	5771	5153	966	841	2861	2471	4338	3598	....	438	16,414	13,962	30,376

Number of places inspected and reported on by Special Inspector, 954.

Prosecutions.

Our laboratory report will show in detail the number of samples of foods and drugs analyzed, and the proportion that were found illegal.

It has been the policy of this Department to aid the dealers in bringing their products up to the standard and our aim has been to limit the prosecutions to the careless and willful. As a rule we have had splendid cooperation with the business interests, but in some instances we were convinced that the law was deliberately violated, and the following table will show the number of prosecutions and the amount of fines collected.

Prosecutions under the Food and Drug Act during 1915 and 1916:

County.	No.	Complaint—	Fine.
Carbon	1	Sulfites in hamburger or sausage	$ 25.00
Custer	2	Sulfites in hamburger or sausage	50.00
Dawson	2	Sulfites in hamburger or sausage	50.00
Fergus	2	Sulfites in hamburger or sausage	45.00
Flathead	2	Sulfites in hamburger or sausage	50.00
Hill	1	Sulfites in hamburger or sausage	25.00
Gallatin	1	Sulfites in hamburger or sausage	25.00
Gallatin	1	Formaldehyde in milk	25.00
Lewis & Clark	1	Formaldehyde in cream	25.00
Lewis & Clark	6	Sulfites in hamburger or sausage	150.00
Missoula	2	Sulfites in hamburger or sausage	50.00
Park	3	Sulfites in hamburger or sausage	100.00
Park	1	Formaldehyde in milk	25.00
Prairie	1	Sulfites in hamburger or sausage	25.00
Ravalli	2	Sulfites in hamburger or sausage	50.00
Rosebud	1	Sulfites in hamburger or sausage	25.00
Sheridan	1	Sulfites in hamburger or sausage	25.00
Silver Bow	17	Sulfites in hamburger or sausage	425.00
Stillwater	1	Sulfites in hamburger or sausage	25.00
Wibaux	1	Sulfites in hamburger or sausage	25.00
Yellowstone	6	Sulfites in hamburger or sausage	150.00

Advisory Council.

Lack of funds in the past has prevented us from doing any drug inspection work, but during the year 1916 we have had our analyst make the inspections of the drug stores of the State and secure samples, which have been analyzed.

In order to get the cooperation of the druggists in this work, the State Board of Health at its meeting held October 7th, 1915, appointed the State Board of Pharmacy to act with the Secretary of the State Board of Health and the Analyst as an advisory council to advice and assist the State Board in its effort to enforce the drug end of the Food and Drug Law. The members of the Board of Pharmacy are practical druggists and have rendered very valuable aid.

This Department wishes to acknowledge the very excellent services rendered by Professor W. M. Cobleigh, Director of our Food and Drug Laboratory, whose very complete laboratory report is herewith given.

"Bozeman, Montana, December 28, 1916.

"Dr. W. F. Cogswell, Secretary,
"State Board of Health
"Helena, Montana.

"Dear Sir:

"I herewith transmit the report of the chemist to the State Board of Health, for the biennial period, November 1st, 1914 to November 1st, 1916.

"Yours very truly,
"W. M. COBLEIGH,
"Chemist."

MONTANA STATE BOARD OF HEALTH

Division of Foods and Drugs.
Division of Water and Sewage.

Report of the Chemist for the Biennial Period, 1914-1916.

By W. M. Cobleigh.

Organization.

The State Board of Health, Food, Drug and Water Laboratories are located at the College of Agriculture and Mechanics Arts, Bozeman. The operation of these laboratories is under the immediate direction of the departments of chemistry and bacteriology of the college. All work of these laboratories is undertaken either at the request of or on approval of the Secretary of the State Board of Health.

The laboratory work is divided into two divisions:

I. Food and Drugs.

The results of analyses of food and drug samples collected by inspectors working under the direction of the Secretary of the State Board of Health, are used in enforcing the State Food and Drug Act and the regulations promulgated under that act.

II. Water and Sewage.

The investigations of water supplies, sewage disposal plants, and the studies of stream pollution conducted by this laboratory under the direction and approval of the Secretary of the State Board of Health, are used in enforcing the State sanitary laws and regulations.

Personnel:

The laboratory staff at the close of the biennial period is given below:

W. M. Cobleigh, Chemist and Director.
D. B. Swingle, Bacteriologist.
H. M. Shea, Food and Drug Analyst.
C. Gottschalck, Water Analyst.
N. Armstrong, Clerk.

Mr. L. P. Davidson was employed by the Secretary of the State Board of Health for a period of nine months and cooperated with the laboratory division in conducting field investigations of water supplies.

Mr. A. D. Burket served as laboratory assistant for three months during the biennial period.

Summary of Laboratory Work.

The following tabulation indicates the amount and scope of the work of the laboratories:

Materials Examined—	No. of Samples
Foods	631
Drugs	472
Water, Sanitary	752
Water, Mineral	326
Sewage	121
Swimming Pool	24
Ice	5
Chemicals for Water Treatment	3
Total	2 334

Nature of the Report.

The report is divided into sections. Each section deals with the work of each subdivision of the laboratory. The report of the water laboratory is given first, followed by the report of the food and drug laboratory.

Report of the Water & Sewage Laboratory

—by—

W. M. Cobleigh, Chemist.
D. B. Swingle, Bacteriologist.
C. Gottschalck, Analyst.

The work of the water laboratory comprises:

1. Laboratory investigations of water supplies.
2. Efficiency tests of water purification plants.
3. Analysis of chemicals used by water purification plants.
4. Problems relating to swimming pool sanitation.
5. Efficiency of sewage treating plants.
6. Studies of the problems of stream pollution.
7. Investigation of the mineral content of Montana ground waters conducted in cooperation with the U. S. Geological Survey and the Department of Chemistry of the College of Agriculture.

Summary of Investigations:

The following summary of samples examined in the Water Laboratory indicates how the above program of work has been carried out during the biennial period:

Summary:

Description—	No. of samples examined.
I. Water—Sanitary.	
1. Public Supplies.	
(a) Surface water	377
(b) Ground water	55
2. Private Supplies.	
(a) Surface water	89
(b) Ground water	231
II. Water—Mineral.	
(a) U. S. Geological Survey	52
(b) City Supplies	50
(c) Private Supplies	224
III. Water—Swimming Pools	24
IV. Sewage and Stream Pollution	121
V. Ice	5
VI. Chemicals for Water Treatment	3
Total	1.231

Investigation of Water Supplies.

The funds at the disposal of the Board of Health for water supply investigations are so limited that it is necessary to place some restrictions on the work in order that the greatest benefit can be obtained for the greatest number of people. In conformity with this policy, restrictions are placed on the examination of water samples from private supplies and the major portion of the money available is spent on investigations of public water supplies where many people receive water from a common source.

However, the Board of Health recognizes the necessity of giving citizens of the state information on the potability of private water supplies in regulations governing the examination of such supplies. The investigation of a private supply is made only on the recommendation of the local health officer under whose jurisdiction the examination takes place. In order to eliminate all requests based only on curiosity, the health officer determines by a careful inspection of the surroundings of the source of the water in question whether a laboratory test is really necessary. If the field inspection shows that there is no chance for sewage and animal excreta to reach the water supply, no sanitary analysis is required. If there is danger of sewage contamination due to unsanitary surroundings, or to a faulty construction of either the well or the sewage disposal system, oftentimes an analysis is still not necessary. It is frequently possible, under such conditions, to order changes in operation or construction that will protect the supply from all pollution. However, if after the above procedure has been followed it is desirable to have an analysis, the health officer can make an application to the water laboratory.

Methods of Investigating Public Supplies.

The sanitary qualities of a public water supply are determined by:

1. A field investigation.
2. A laboratory investigation.

The field investigation is made to determine the exact condition of the environment of the water supply from a sanitary aspect. The laboratory investigation is conducted by making examinations on a carefully selected set of water samples at the time of the field investigation. The most satisfactory results are obtained when the bacteriological examination can be started in the field and the materials shipped to the bacteriological laboratory, where the examination is completed. But this method is expensive, and while the laboratory owns all the equipment necessary for this procedure, lack of funds prevents its adoption in all but the most important examinations.

Experience shows that the most satisfactory results are obtained when the entire investigation is under the control of one department; this is the method adopted by the Board of Health.

The interpretation of the results of the complete investigation of a surface water supply is based on certain general considerations which should be understood. The definitions of some of the terms used in an interpretation are given below:

Water—	Polluted—	Befouled—	Contains matter not of excrementitious origin, but which tends to make water unsightly or ill smelling.
		Contaminated—	Contains excreta from human beings or animals.
	Infected—		Contains germs of disease.
	Poisoned—		Contains a poisonous chemical substance.

It will be observed from the above that the word "pollution" is a general term used to cover all substances which may have a befouling or contaminating influence when mixed with water. These may include waste products of industrial processes, surface wash from the watershed of a river during freshets, and excreta of human beings, farm animals and birds.

It is desirable to divide polluting matter into the two classes befouling and contaminating matter as shown in the tabulation above. This division is made because it is necessary for the water analyst in his report to point out whether a water is only befouled with matter that makes it unsightly or ill-smelling, or whether a water is contaminated with animal excreta that may introduce germs of disease and thus infect the water and make it unsafe for human consumption.

An infected water actually contains the germs of disease. Among the diseases which may be and frequently are caused by drinking contaminated water are included, according to Dr. W. H. Frost, "typhoid fever, Asiatic cholera, dysentery, and various more or less well-defined forms of enteritis, as well as infections with animal parasites. Each of these diseases is caused by a specific organism and, with the exception of certain animal parasite infections, the diseases of this group are peculiar to man, not affecting the lower animals. The specific germs of these infections have apparently no other natural breeding place than the human body, and are found in nature only in the bodies and the excreta of infected persons. Consequently, infection can take place only by ingestion of the excreta of persons previously infected. Human excreta are, therefore, the most dangerous as well as the most disgusting constituent of sewage, since there is always the liklihood that they may contain these specific disease germs."

For reasons that need not be given here, the water analyst does not attempt in routine water testing to determine whether water is infected, but uses bacteriological and chemical tests to detect the presence of contamination, and thus determines as far as possible whether a water contains unpurified animal excreta.

Here in turn it is very desirable to determine if possible whether the contamination is in the form of human excreta, or whether it is excreta of farm animals or birds. This distinction can only be made in part by judging the significance of the laboratory data in the light of sanitary conditions on the watershed as shown by the field survey. While the presence of Bacillus coli in a water is the best index of contamination, still some care must be used in formulating interpretations, because B. coli introduced by human excreta indicates a much more dangerous form of contamination than B. coli introduced in the excreta of farm animals or birds.

The interpretation of the results of an investigation of a water supply involves the consideration of certain general principles relating to the sanitary conditions of watersheds which are given below.

Principles Governing Location of Intakes.

1. Intakes Above Habitations: In the light of the above statements, it is plain that if a surface water is to be considered perfectly safe and one that can be recommended for public consumption, then the intake delivering water to the system should be above all possible sources of contamination. The watershed from which the surface water comes should have no human habitations located above the intake. No campers should be allowed there at any season of the year, and so far as possible, human beings should be excluded from the area of the watershed at all times. Farm animals should not be allowed to pasture on the watershed. Watersheds protected in this manner would be normally free from all forms of dangerous contamination, and the water delivered from such an area to a drainage channel could be safely recommended for public consumption.

II. Intakes Below Habitations. It follows therefore that when the intake of a city water system is located below human habitations then conditions are introduced which require special attention. When there are farm habitations, mining camps, and small villages on the watershed of a stream used for domestic purposes, an element of risk is introduced in that there is a possibility of contamination reaching the water. There is likewise danger when campers are allowed to establish camps on the banks of such a stream. The risk introduced in cases of this kind depends primarily on the possibility for excreta to enter the water supply and contaminate it. It is a difficult matter to establish any method of rating or of estimating the risk introduced. This element is such an uncertain factor that many sanitarians will not recommend a surface water for public consumption, if the same is derived from a watershed or from a stream on either of which there are any considerable number of human habitations, unless the strictest police regulations are in force. Many sanitarians will not recommend an untreated surface water for public consumption unless the water is delivered to the intake above all human habitations, including farms, camps, villages, and any other possible sources of contamination. This is a safe standard and reduces to a minimum the risk that is always assumed by the public when using a water supply that does not conform to the above standard.

If the complete investigation of a public water supply furnishes a series of facts, which indicate that the water cannot be unqualifiedly recommended for public consumption when measured by the above standards, then one of the following remedies is suggested:

1. Abandonment of supply.
   Extreme conditions may require that a new source of water supply be secured.
2. Construction.
   The construction of the water system may be altered in such a way to overcome all objections from the sanitary aspect.
3. Location.
   Changing the location of an intake to a water system from a point below sources of contamination to a point above such sources is often desirable. This remedy can be applied to certain mountain streams in the state. A change in the location of the storage reservoir may be required in some cases.
4. Policing Watershed.
   The sanitary condition of a watershed can be controlled under some circumstances by policing. The work must be intelligently performed if proper protection is to be secured.
5. Control by Purchase.
   Complete control of a watershed can sometimes be secured by the purchase of a sufficient area of ground to insure a sanitary environment. All habitations and sources of contamination can then be removed.
6. Treatment.
   When it is impossible to deliver raw water to the system in a safe, sanitary condition, one or more of the following methods of treatment can be applied:
    1. Storage and sedimentation.
    2. Coagulation.
    3. Filtration.
        - (a) Slow sand.
        - (b) Rapid sand.

4. Disinfection.
    (a) Liquid Chlorine.
    (b) Calcium hypochlorite.
    (c) Ultra violet light.

A summary of the results of the examinations of both public and private water suppplies is tabulated at the end of this report.

There are a total of 86 public water supplies in the state. Thirty-one (31) of these are owned by private companies and fifty-five (55) are municipally owned.

PRIVATE WATER PLANTS.

Owner—	City—	Source: Ground or Surface Water.
Alberton Water Works	Alberton	Four Springs
Anaconda Copper Mining Co.	Anaconda	Mountain streams W. Spring Creek.
Bear Creek Water and Light Co.	Bear Creek	Creek
Belgrade Water Co.	Belgrade	Mountain stream Springhill Creek.
Beuschlein Water Works	Marysville	Tunnel
Bridger Water & Light Co.	Bridger	Clark's Fork River
Butte Water Co.	Butte	Big Hole River
Citizens' Water Co.	Deer Lodge	Mountain stream Cottonwood Creek.
Columbia Falls Water Co.	Columbia Falls	Mountain stream
Conrad City Water Co.	Conrad	Scoffin Coulee
DeBorgia Water Co.	DeBorgia	Two Springs
Gardiner Electric Light & Water Co.	Gardiner	Yellowstone River.
Joliet Water Co.	Joliet	Rock Creek
Libby W. W. E. L. & P. Co.	Libby	Stream and springs
Little Chicago, W. W. (A. C. M. Co.)	Great Falls	Missouri River
Livingston Water Co.	Livingston	Yellowstone River
Missoula Light and Water Co.	Hamilton	Mountain stream Skalkaho Creek.
Missoula Light and Water Co.	Missoula	Mountain stream Rattlesnake creek
Neihart E. L. & W. Co.	Neihart	Mountain stream Belt Creek.
Nor. Idaho & M. P. Co.	Big Fork	Swan River
O. S. L. R. R.	Lima	Wells: Peat's Springs

Plains L. & W. C., Plains	Six wells
Pony Water Co., Pony	Three wells: Springs
Saltese E. & L. & W. Co., Saltese	Springs
Saltese Water Co., Saltese	Springs
Sheridan Water, Sheridan	Spring and wells
So. Deer Lodge W. C., Deer Lodge	Five springs
Superior E. L. & W. Co., Superior	Springs
Thompson Falls W. Co., Thompson Falls	Stream
Virginia City W. C., Virginia City	Stream
Somers Lumber Co., Somers	Flathead Lake

MUNICIPAL WATER PLANTS.

City—	Source: Ground or Surface Water.
Baker	Deep wells
Big Timber	Gravity from Boulder river
Billings	Filtration plant, Yellowstone river
Bozeman	Mountain stream: Lyman creek
Chester	Wells
Chinook	Filtration plant: Milk river
Choteau	Wells
Columbus	Filtration plant: Yellowstone river
Cut Bank	Cut Bank Creek
Dillon	Mountain stream: Rattlesnake Creek
Eureka	Wells
Forsyth	Yellowstone River
Fort Benton	Wells near Missouri river
Glasgow	Wells
Glendive	Yellowstone River
Great Falls	Missouri River
Harlem	Milk River
Hardin	Mountain stream: Big Horn River
Harlowton	Wells
Havre	Wells
Helena	Mountain streams and springs
Kalispell	Springs near Stillwater River
Laurel	Yellowtsone River
Lewistown	Spring
Malta	Wells
Manhattan	Spring
Medicine Lake	Wells
Miles City	Filtration plant: Yellowstone River
Moore	Drilled wells

Phillipsburg	Mountain stream: South Boulder
Plentywood	Wells
Polson	Flathead Lake
Red Lodge	Mountain stream: Rock Creek
Roundup	Wells
Shelby	Marias River
Sidney	Wells
Townsend	Mountain stream
Valier	Wells
Wibaux	Wells
Whitefish	Whitefish Lake
White Sulphur Springs	Mountain streams: Reservoir
Fromberg	Clark's Fork River
Belt	Deep well: Belt Creek
Whitehall	Wells
Libby	Mountain stream
Twin Bridges	Drilled well. 50,000 gal.
Two Dot	Wells
Judith Gap	Wells
Clyde Park	Springs
Paradise	N. P. Reservoir
Culbertson	Missouri River
Broadview	Wells
Hysham	Wells
Ryegate	Wells
Troy	Wells near Kootenai River

Investigation of Drinking Water Supplied to the Public by Common Carriers.

All railroads in the state must conform to the provisions of the amendment to Article 3, of the Interstate Quarantine Regulations as promulgated by the Secretary of the Treasury on January 3rd, 1913. This amendment requires that investigations be made every six months of all water supplies used to supply drinking water to the public by common carriers in interstate commerce. The water used for the above purpose must conform to a definite standard of purity, approved by the Secretary of the Treasury on October 21, 1914.

In carrying out the provisions of this regulation for Montana, the water laboratory examines water samples every six months from the following cities where water is supplied to passenger cars for drinking.

Anaconda.
Armstead.
Billings.
Bozeman.
Butte.
Deer Lodge.
Forsyth.
Glendive.
Glasgow.
Glacier Park.
Great Falls.
Harlowton.
Havre.
Highwood.
Helena.
Kalispell.
Lewistown.
Lima.
Livingston.
Logan.
Miles City.
Missoula.
Ollie.
Paradise.
Phillipsburg.
Rexford.
Sheridan.
Warren.
Whitefish.
White Sulphur Springs.
Yellowstone.

Efficiency Tests of Purification Plants.

Water filtration plants have been installed at Miles City, Billings, Columbus and Chinook. Disinfection plants using liquid chlorine or calcium hypochlorite are in operation at Butte, Great Falls, Glendive and Chinook.

Efficiency tests of these plants have been made from time to time. Such a test is made by examining samples of both raw water and treated water.

Swimming Pool Sanitation.

The number of swimming pools in operation in the state is increasing year by year. The department has given some attention to the sanitaton of swimming pools, but with the funds available has not been able to make extended studies of the condition of swimming pools in the state.

Rosenau says, in his text on Preventative Medicine and Hygiene, "The problem of the swimming pool is a good example of an institution devised to improve hygienic conditions, yet the device itself may be a hygienic menace. Swimming pools are nothing more or less than common bath tubs. The growing popularity of swimming pools has led to an increased interest in the sanitary conditions that prevail in them. There is no longer any doubt that they can and sometimes do transmit disease. When the use of swimming pools is made compulsory, as is the case with pupils of some secondary schools, a serious duty of sanitary supervision and responsibility arises.

"The diseases contracted in swimming pools are intestinal infections: inflammatory infections of the upper respiratory tract and conjunctiva; injury and inflammation of the ears; venereal and skin diseases, etc. Typhoid fever and diarrheal conditions have been traced on reasonably reliable evidence to swimming pools such as are installed by private individuals, or found in colleges and universities, public and private schools, gymnasiums, steamships and special bathing establishments.

"The chief danger of infection comes from the water, if not kept clean, or from the towels and swimming suits, if not disinfected. The source of the infection comes in almost all instances from the persons entering the swimming pools. The remedy for this is to require a shower bath with the liberal use of soap before entering the tank. At the same time, a careful examination should be made of each person to determine especially the presence of skin diseases, running ears, ulcers, conjunctivitis, venereal diseases, or signs of inflammation of the upper respiratory tract.

"Satisfactory hygienic conditions in swimming pools is accomplished in part by suitable adminstraton of the plant, including the supervision of the working force, the inspection and ablution of the bathers before they enter the water, and their instruction in pool sanitation. Finally, sterilization by boiling and steaming of towels and bathing suits after each use will avoid one of the sources of conveying infection."

The water in a swimming pool should have high initial purity and it should be kept clean by some kind of treatment. Continuous filtration, together with disinfection by ultra violet light, would no doubt be a good combination of purifying processes to use in Montana. From observations made by the writer on the operation of swimming pools in Y. M. C. A. buildings in the East, the above method is to be preferred to filtration and disinfection with chlorine or copper sulphate.

Sewage Disposal and Stream Pollution.

During the biennial period, the laboratory has continued the study of the pollution of the East Gallatin River by Bozeman sewage. The data will be published in a later report. Considerable information on the sanitary condition of surface waters generally has been obtained from the investigations of city water supplies taken from polluted streams. The efficiency tests of purification plants include examinations of the raw water as well as the treated water. However, systematic studies should be made of several streams in the state which receive city sewage, and which also must be used for city water supplies. More funds than are at present available will be required before the laboratory can undertake such investigations in a systematic way.

In reporting laboratory investigations of sewage disposal plants and the resulting effects of stream pollution it is necessary to have in mind some well defined policies governing these matters. The problems that arise are involved, and much study has been devoted to the formulation of principles and policies upon which opinions expressed in reports can be based.

It is now universally recognized that a properly constructed sewerage system is necessary for the general health and welfare of any town or city. As a result, all the larger communities have installed quite complete sewerage systems with universal house connections, and the smaller towns are constructing such systems as rapidly as funds will permit. People appreciate that the expenditure of public money for such an improvement is necessary if the community is to obtain protection from the sewage-born diseases that follow when animal waste is allowed to accumulate. While the protection against disease is of paramount importance, still it must not be overlooked that a good sewerage system also contributes to the development of a wholesome civic pride, promotes ideals of cleanliness, and is a great factor with prospective new-comers to the community.

While a given city can thus receive those benefits and be protected from the effects of accumulations of its own sewage and waste by proper disposal; still it must not be overlooked that certain very important consequenses follow this procedure. It is customary to dispose of sewage effluent from treating plants in streams of running water. This disposal is sometimes made of raw sewage under certain definite restrictions. It is in this phase of sewage disposal that the difficult problems arise, because such gross forms of pollution in streams may effect the rights of several communities along one stream.

It is therefore necessary to have effective state regulation of the permissable degree of stream pollution. It follows that there should be effective cooperation between state officers who must administer state laws and regulations governing stream pollution, and city officers who are called upon to install and operate sewerage systems and sewage treating plants. The cooperation necessary in these matters is often lacking because differences of opinion arise. These differences are often due to the fact that the officials concerned are not forming their opinions from the same set of facts and general principles. In making reports on the above matters, the laboratory makes use of the following principles governing problems of sewage disposal and stream pollution.

> * "The introduction of sewer systems into modern cities whereby wastes of domestic life and industry are discharged into water courses, has brought about the need for the treatment of sewage in order to accomplish two purposes: (a) To promote the comfort and convenience of the people by maintaining water courses in a decently clean condition; that is, free from nuisance to sight or smell so as to be fit for civic development, industry and recreation. (b) To aid in protecting the public health, when necessary, by maintaining watercourses as fit sources of water supply after adequate purification or for the cultivation of shell fish.
>
> "The initiative for installation of sewage treatment works usually is either:
>
> "(a) The recognition by a community of the fact that nuisances in water courses retard municipal development, deprive the citizens of their use of the streams, and offend common decency.
>
> "(b) An order from a properly empowered body for the installation as a sanitary measure for the protection of the users of watercourses.
>
> "The design and extent of the works and the degree of treatment required should be such as to promote

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* Report Committee on Sewage Work Operation, American Public Health Association.

> economy of funds in order to give the greatest benefits to the largest number of people at the least cost.
>
> "Based upon these premises, the operation of a sewage treatment works may be judged by the following standards:
>
> "(a) Prevention of nuisance either at the works or in the body of water receiving the effluent.
>
> "(b) Protection to the public health, e. g., in reducing the pollution in a water course to relieve the load on a water purification plant."

Applying the above statements more specifically to the conditions found in Montana. it may be said that there are three kinds of water-ways from this standpoint of this discussion. **First:** there is the mountain stream in its natural state of purity and used as a source of public water supply above all location of human habitations. **Second:** there is the river draining a large inhabitated valley and receiving untreated city sewage effluent and also pollution by drainage from the watershed. In this case, branch streams are not available from which to obtain public water supplies; and the main drainage channel of the valley must be used both as a source of water supply for cities, and for the disposal of sewage effluent. **Third:** there is the river draining a large inhabited valley and receiving untreated city sewage and sewage effluent. but so located with respect to nearby pure mountain streams, that it is not necessary to use the river as a source of public water supplies. In this case, the mountain stream could be used for supplying water for public consumption, and the main drainage channel of the valley could be used for sewage disposal under proper regulations governing stability of the effluents.

With the varying conditions found in Montana, it is apparent that uniform regulations governing disposal and treatment, and governing the pollution of waterways. should not be adopted. The regulations should be elastic so that for any given case, the method of sewage disposal and treatment adopted might show results in preventing stream pollution commensurate with the cost.

The following regulations are suggested to govern the pollution of the three kinds of waterways mentioned above.

In the first place, where mountain streams are used above habitations as sources of water supplies, sufficient protection could be obtained, as a rule, by adequate inspection of the watershed and efficient police regulations governing the use of the watershed by fishing parties, picnic parties, and for the pasturing of farm animals.

Water from a stream of the second class should not be used for city water supply without purification. Farmers living on such a water course should not expect the stream to be maintained in its original state of purity. Farm water supplies should not be taken from such surface water. As a rule, ground water should be used for farm water supplies. The sewage entering this kind of a stream should receive such treatment as the circumstances demand. The method of treatment should yield an effluent purified to such a degree that its presence in the stream will not place an undue burden on water purifying plants at various points on the stream. In short, in the case of streams of the second class, it is necessary both to treat the sewage that is discharged into the water course and to purify the water for drinking.

In the case of streams of the third class, the method of sewage disposal and treatment should be governed from the standpoint of preventing a nuisance. The amount of treatment necessary in this case depends upon the degree of dilution possible. In all cases, sewage treating plants should be designed and constructed in such a manner that the benefits derived shall be commensurate with the cost.

Mineral Content of Montana Ground Waters.

A number of towns and cities in the state use ground water as a source of public water supply. In many districts in Montana ground water contains an excessive amount of mineral matter in solution in a form popularly called alkali. To secure a good quality of water in such a district it is often necessary to drill a series of test wells. Samples of water from these wells are sent to the laboratory for examination for mineral content, and the results when compared give valuable information which is used in selecting a site for a municipal well. The laboratory has rendered this service for cities and towns on a number of occasions.

Citizens make numerous requests for information on the quality of ground water taken from private wells for domestic purposes. To satisfy the demand for information of this character, the Department of Chemistry of the College of Agriculture began nine years ago a study of the farm water supplies of the state. No funds were available and the work required was volunteered by members of the department staff from time to time.

Two years ago the Ground Water Division of the Water Resources Branch of the United States Geological Survey began a systematic investigation of Montana ground waters. In order that there might not be any duplication of effort. the survey officials requested that a cooperative agreement be made with state organization already interested in the study of ground waters. As a result of this proposal the United States Geological Survey, the Montana State Board of Health and the Department of Chemistry of the College of Agriculture are now cooperating in this important investigation. The survey officials conduct the field investigations and secure typical samples of water for analysis. The laboratory examinations are made in the chemical laboratories of the State Board of Health and the College of Agriculture. About 1,000 samples of water have been analyzed and much information is available on the quality of ground waters in various districts of the state. The laboratory data together with interpretations are now being prepared for publication.

Tabulations.

The results of the more important investigations of both private and public water supplies are tabulated on the following pages. The method of tabulation used by the Minnesota Board of Health has been adopted.

There is too much laboratory data to publish; therefore, the results of both the field and the laboratory investigations are expressed as either "satisfactory" or "unsatisfactory." The term "satisfactory" in the column under "laboratory investigation" means that both the bacteriological and the chemical data give no indication of the presence of contamination and that the mineral content of the water was not excessively high. When the analytical results indicate the presence of contamination or an excessive amount of mineral matter in solution, the term "unsatisfactory" is used.

Where the term "unsatisfactory" is used to state the results of the field investigation it is understood that some improvements could be made in the physical condition of the water plant from the sanitary aspect. These improvements either refer to changes in construction, environment, location, or operation. For the exact significance of these terms as applied to any given investigation, the original report should be consulted.

Recommendations based on the results of both the field and laboratory investigations are made in each report. A condensed form of representing the recommendations in the tabulation is used. Letters are used to designate the recommendations.

A. Abandonment of supply recommended.
C. Recommendation concerning construction given.
E. Recommendation regarding environment given.
L. Recommendation regarding location given.
O. Recommendation regarding operation given.
I. Inspection recommended.
La. Further laboratory investigation recommended.
T. Treatment of supply recommended.
W. Recommended that watershed be policed.
M. Recommendation regarding excessive mineral content given.
R. Water recommended for public consumption.
Nr. Water not recommended for public consumption.

If a water supply is receiving treatment the following designations are used to indicate the kind:

S. Sedimentation .
F. Filtration.
D. Disinfection.

The full significance of all phases of any given water supply investigation cannot be obtained from the condensed tabulations. For full information the original report should be consulted.

WATER INVESTIGATIONS.

PUBLIC SUPPLIES

Biennial Period, November, 1914, to November, 1916.

Lab. No. W.	Locality—	Source	Ownership—	Sanitary Conditions as Shown by Field Investigation	Sanitary Conditions as Shown by Laboratory Investigation.	Recom.
5558–60	Alberton	Spring	C., M. & St. P. Ry. Co.	Satisfactory	Satisfactory.	
5580–85	Anaconda	Ben Fifer Creek Lake Hurst	A. C. & M. Co.	Satisfactory	Satisfactory	R.
5585–90	Anaconda	Warm Springs Creek	A. C. & M. Co.	Unsatisfactory	Satisfactory	T.
4916–17	Armington	Well	Gt. N. Ry. Co.	Unsatisfactory	Satisfactory.	C.
5474	Armington	Belt Creek	Gt. N. Ry. Co.	Unsatisfactory	Unsatisfactory.	C.I.&.La.
5052	Armstead	Spring	Gilmore & Pittsburg Ry. Co.	Satisfactory	Satisfactory.	
5542	Armstead	Spring	Gilmore & Pittsburg Ry. Co.	None Made	Satisfactory.	
5569–73	Belgrade	Ross Creek	Belgrade Water Co.	Unsatisfactory	Unsatisfactory.	C. or W. La.
5991–94	Belgrade	Ross Creek	Belgrade Water Co.	None Made	Satisfactory.	La.
5072–75	Bear Creek	Bear Creek	Bear Cr. Water & Light Co.	Unsatisfactory	Unsatisfactory.	L.T.La.
6080–	Bercail	Well	School District	Satisfactory	Satisfactory.	R.
5283	Belt		Municipal	None Made	Satisfactory.	I.La.
5462	Big Sandy	Well	School District No. 11	Satisfactory	Satisfactory.	R.
5246–50	Big Timber	Boulder River	Municipal	Unsatisfactory	Satisfactory.	I.W.La.
5544	Bonner	Reservoir	A. C. M. Co.	Satisfactory	Satisfactory.	I.La.
5576	Brockway	Well	Municipal	Satisfactory	Satisfactory.	La.
5345–46	Broadview	Well–Spring	Municipal	Satisfactory	Satisfactory.	R.La.
5147–50	Butte	Big Hole River	Butte Water Co.	None Made	Satisfactory.	I.La.
5555–57	Butte	Big Hole River	Butte Water Co.	None Made	Satisfactory.	I.La.
6046–54	Butte	Big Hole River	Butte Water Co.	None Made	Satisfactory.	I.La.
6094–96	Butee	Big Hole River	Butte Water Co.	None Made	Satisfactory.	I.La.
5480	Centerville	Moulten Reservoir		None Made	Satisfactory.	I.La.
5179	Chester	Well	Municipal	Satisfactory	Satisfactory.	La.
5067–5071	Choteau	Proposed Well	Municipal	Satisfactory	Satisfactory	R.
5528–31	Choteau	Wells	Municipal	Satisfactory	Satisfactory	R.
4937	Cyde–Park	Terry Spring	Proposed Municipal	Satisfactory	Satisfactory	R.
4951	Crow Agency	Rosebud River	U. S. Government	Unsatisfactory	Unsatisfactory.	A. or T.
5536–40	Conrad	Wells, Spring	Conrad City Water	Satisfactory	Satisfactory.	I.La.
5423–34	Cut Bank	Cut Bank Creek	Municipal	Unsatisfactory	Unsatisfactory.	A. or T.
5980–83	Denton	Warren Spring	Proposed Municipal	None Made	Satisfactory.	I.La.
5982	Denton	Gilchrist Spring	Proposed Municipal	None Made	Satisfactory.	I.La.
5398–5401	Deer Lodge	Cottonwood Creek	Citizens' Water Co.	Unsatisfactory	Satisfactory.	W.La.
5564–65	Deer Lodge	Cottonwood Creek	Citizens' Water Co.	Unsatisfactory	Satisfactory.	W.La.
6036	Deer Lodge	Cottonwood Creek	Citizens' Water Co.	Unsatisfactory	Satisfactory.	W.La.
6010	Deer Lodge	Cottonwood Creek	Citizens' Water Co.	Unsatisfactory	Satisfactory.	W.La.
5995	Dodson	Well	Proposed Municipal	Satisfactory	Satisfactory.	R.
4992–93	Fromberg	Clark's Fork River	Proposed Municipal	Unsatisfactory	Satisfactory.	T.
5446–47	Fromberg	Clark's Fork River	Municipal	Unsatisfactory	Unsatisfactory	F.O.La
6006	Forsyth	Yellowstone River	N. P. Ry. Co.	Unsatisfactory	Satisfactory.	S.La

WATER INVESTIGATIONS.

PUBLIC SUPPLIES

Biennial Period, November, 1914, to November, 1916.

(Continued)

Lab. No. W.	Locality	Source—	Ownership—	Sanitary Conditions as Shown by Field Investigation	Sanitary Conditions as Shown by Laboratory Investigation.	Recom.
6079	Fort Benton	Midvale Creek	Municipal	Unsatisfactory	Satisfactory.	I. La.
5090–96	Gardiner	Midvale Creek	Gardiner Water Co	Satisfactory	Satisfactory.	I. La.
4087	Glacier Park	Missouri River	Gt. Northern Ry. Co	Satisfactory	Satisfactory.	I. La.
4984	Glacier Park	Yellowstone River	Gt. Northern Ry. Co	Satisfactory	Satisfactory.	I. La.
5445	Glacier Park	Midvale Creek	Gt. Northern Ry. Co	None Made	Satisfactory.	I. La.
6030	Glacier Park	Midvale Creek	Gt. Northern Ry. Co	None Made	Satisfactory.	I. La.
5020	Glasgow	Wells	Municipal	Satisfactory	Satisfactory.	La.
5466–67	Glasgow	Wells	Municipal	Satisfactory	Satisfactory.	La.
5021	Glasgow	Wells	Gt. Northern Ry. Co	Satisfactory	Satisfactory.	La.
5464–65	Glasgow	Wells	Gt. Northern Ry. Co	Satisfactory	Satisfactory.	La.
6013	Glasgow	Wells	Municipal	Satisfactory	Satisfactory.	La.
5121–25	Glendive	Yellowstone River	Municipal	Unsatisfactory	Unsatisfactory.	T. La.
5038–39	Glendive	Yellowstone River	N. P. Ry. Co	Unsatisfactory	Unsatisfactory	S. La. T.
5122–24	Glendive	Yellowstone River	N. P. Ry. Co	Unsatisfactory	Unsatisfactory	S. La. T.
5232–42	Great Falls	Missouri River	Municipal	Unsatisfactory	Unsatisfactory.	T. La.
5613	Great Falls	Missouri River	Municipal	Unsatisfactory	Unsatisfactory.	D. O. La.
6027	Great FFalls	Missouri River	Municipal	Unsatisfactory	Unsatisfactory.	D. O. La.
5494–5507	Great Falls	Missouri River	Municipal	Unsatisfactory	Unsatisfactory.	D. O. La.
5483–92	Hamilton	Skalkaho Creek	Missoula Light & Water Co	Unsatisfactory	Satisfactory.	La.
5535	Hamilton	Skalkaho Creek	Missoula Light & Water Co	None Made	Satisfactory.	La.
6035	Hamilton	Skalkaho Creek	Missoula Light & Water Co	None Made	Satisfactory.	La.
5036–37	Hardin	Well	Municipal	Satisfactory	Satisfactory.	R. M.
5550–52	Harlowton	Well	C., M. & St. P. Ry. Co	Unsatisfactory	Unsatisfactory.	A. or T.
4942	Harlowton	Well	Municipal	Satisfactory	Satisfactory.	
6026	Harlowton	Well	Municipal	Satisfactory	Satisfactory.	
4097–98	Harlem	Milk River	Municipal	None Made	Unsatisfactory.	I.
4946	Havre	Well	Gt. Northern Ry. Co	None Made	Satisfactory.	
4985–88	Havre	Well	Gt. Northern Ry. Co	None Made	Satisfactory.	
5458–59	Havre	Well	Gt. Northern Ry. Co	Satisfactory	Satisfactory.	R.
6028	Havre	Well	Gt. Northern Ry. Co	Satisfactory	Satisfactory.	R.
5286–92	Helena	Hale Reservoir	Municipal	Unsatisfactory	Unsatisfactory.	T. or W. La.
5296–97	Helena	Eureka Bed Rock Drain	Municipal	Unsatisfactory	Satisfactory.	I. La.
5380–82	Helena	Eureka Bed Rock Drain	Municipal	Unsatisfactory	Satisfactory.	I. La.
5383–86	Helena	W. Side Bed Rock Drain	Municipal	Satisfactory	Satisfactory.	La.
5300	Helena	Ten Mile Reservoir	Municipal	Unsatisfactory	Unsatisfactory.	T. or W. La.
6042	Helena	West Side Drain	Municipal	None Made	Satisfactory.	
5294–95	Highwood	Spring	C., M. & St. P. Ry. Co	Satisfactory	Satisfactory.	R.
5553	Highwood	Spring	C., M. & St. P. Ry. Co	Satisfactory	Unsatisfactory	I. La.
6002	Hinsdale	Spring	Proposed Municipal	Satisfactory	Satisfactory.	M.

WATER INVESTIGATIONS.

PUBLIC SUPPLIES

Biennial Period, November, 1914, to November, 1916

(Continued)

Lab. No. W.	Locality—	Source—	Ownership—	Sanitary Conditions as Shown by Field Investigation	Laboratory Investigation.	Recom.
5198–5200	Hysham	Wells	Proposed Municipal	Satisfactory	Satisfactory.	M.
5344	Judith Gap	Well	Proposed Municipal	Satisfactory	Satisfactory.	
4080	Judith Gap	Well	School District No. 1	Satisfactory	Satisfactory.	R.
4979	Kalispell	Stillwater River	Municipal	None Made	Satisfactory.	La. I.
5211	Kalispell	Stillwater River	Municipal	None Made	Satisfactory.	La. I.
5439–40	Kalispell	Stillwater River	Municipal	None Made	Satisfactory.	La. I.
6033	Kalispell	Stillwater River	Municipal	None Made	Satisfactory.	La. I.
5477	Lewistown	Springs	Municipal	Satisfactory	Satisfactory.	R.
5475–76	Lewistown	Well	Gt. Northern Ry. Co.	Satisfactory	Satisfactory.	La.
5085	Libby	Flower Creek	Libby Water Co.	None Made	Satisfactory.	I. La.
4921–26	Livingston	Yellowstone River	Livingston Water Co.	Unsatisfactory	Satisfactory	La.
4950	Livingston	Yellowstone River	Livingston Water Co.	Unsatisfactory	Satisfactory	La.
5097–5101	Livingston	Yellowstone River	Livingston Water Co.	Unsatisfactory	Satisfactory	La.
5320–24	Livingston	Yellowstone River	Livingston Water Co.		Satisfactory	La.
5997	Livingston	Yellowstone River	Livingston Water Co.	Unsatisfactory	Satisfactory	La.
6037–38	Livingston	Yellowstone River	Livingston Water Co.	Unsatisfactory	Satisfactory	La.
5545	Manhattan	Well	School District No. 52	Satisfactory	Satisfactory	La.
5561–63	Missoula	Rattlesnake Creek	Missoula Light & Water Co.	None Made	Satisfactory.	I. La.
6034	Missoula	Rattlesnake Creek		None Made	Satisfactory.	I. La.
6058–59	Moore	Well	Municipal	Satisfactory	Satisfactory.	R.
6093	Moore	Well	School District No. 68	Unsatisfactory	Satisfactory.	La.
6032	Paradise	Canyon Creek	N. P. Ry. Co.	None Made	Satisfactory.	I. La.
5156–57	Poplar	Reservoir	U. S. Government	None Made	Unsatisfactory.	I. La.
5118	Poplar	Reservoir	U. S. Government	None Made	Satisfactory.	I. La.
4955	Philipsburg	S. Boulder River	Municipal	None Made	Satisfactory.	I. La.
4974	Rexford	Kootenai River	Gt. Northern Ry.	None Made	Satisfactory.	I. La.
5435	Rexford	Kootenai River	Gt. Northern Ry.	None Made	Satisfactory.	I. La.
6031	Rexford	Kootenai River	Gt. Northern Ry.	None Made	Satisfactory.	I. La.
5032–33	Rockhill	Spring	Warner's Logging Camp	None Made	Satisfactory.	
4927	Roundup	Well	Municipal	None Made	Satisfactory.	I. La.
5137	Roy	Well	Municipal	Satisfactory	Satisfactory.	La.
5187	Roy	Well	Municipal	Satisfactory	Satisfactory.	La.
5138	Roy	Well	School District	Satisfactory	Satisfactory.	La.
5188	Roy	Well	School District	Satisfactory	Satisfactoory.	
5213	Ryegate	Well	Proposed Municipal	Satisfactory	Satisfactory.	M.
5214	Ryegate	Well	Proposed Municipal	Satisfactory	Satisfactory.	M.
5215	Ryegate	Well	Proposed Municipal	Satisfactory	Satisfactory.	M.
5217	Ryegate	Well	Proposed Municipal	Satisfactory	Satisfactory.	M.

WATER INVESTIGATIONS.

PUBLIC SUPPLIES

Biennial Period. November, 1914, to November, 1916.

(Continued)

Lab. No. W.	Locality—	Source—	Ownership—	Sanitary Conditions as Shown by Sanitary Conditions	Sanitary Conditions as Shown by Laboratory Investigation.	Recom.
6044	Saco	Well	Proposed Municipal	Satisfactory		
5469–70	Scobey	Poplar River	Gt. Northern Ry. Co.	Unsatisfactory	Satisfactory.	I. La.
6009	Scobey	Well	School District	Satisfactory	Satisfactory.	
5231	Sidney	Well	Proposed Municipal	None Made	Unsatisfactory	I. La.
5277–79	Sidney	Well	Proposed Municipal	Satisfactory	Satisfactory.	M.
5472–73	Snowden	Missouri River	Gt. Northern Ry.	Unsatisfactory	Unsatisfactory.	La.
6055	Sheridan	Indian Creek	Proposed Municipal	None Made	Satisfactory.	
5921	Sheridan	Reservoir	Sheridan Water Co.	None Made	Satisfactory.	I. La.
5996	Stevensville	Reservoir	Municipal	None Made	Satisfactory.	I. La.
5547–49	Three Forks	Jefferson River	C., M. & St. P. Ry. Co.	Unsatisfactory	Unsatisfactory	A. or T.
5347	Three Forks	Well No. 1	Proposed Municipal	Satisfactory	Satisfactory	M.
5348	Three Forks	Well No. 2	Proposed Municipal	Satisfactory	Satisfactory.	M.
5413	Three Forks	Well No. 3	Proposed Municipal	Satisfactory	Satisfactory.	M.
5579	Three Forks	Well No. 4	Proposed Municipal	Satisfactory	Satisfactory.	M.
5678	Three Forks	Madison River	Proposed Municipal	Unsatisfactory	Unsatisfactory.	A.
6073–75	Warm Springs	Dutchman Creek	Montana Hospital for Insane	Unsatisfactory	Unsatisfactory	T. La.
5046	Warren	Lost Creek				
5046	Warren	Mountain Stream	C., B. & Q. Ry. Co.	Satisfactory	Satisfactory.	La.
5210	Wibaux	Well	Proposed Municipal	Satisfactory	Satisfactory.	
5438	Whitefish	Whitefish Lake	Gt. Northern Ry.	None Made	Satisfactory.	La.
6029	Whitefish	Whitefish Lake	Gt. Northern Ry.	None Made	Satisfactory.	La.
4975–77	Whitefish	Whitefish Lake	Gt. Northern Ry.	Satisfactory	Satisfactory.	La.
5256	Whitehall	Well	Proposed Municipal	Satisfactory	Satisfactory.	La.
4945	White Sul. Sprgs.			None Made	Satisfactory.	I. La.

WATER INVESTIGATIONS.

PUBLIC SUPPLIES

Treated Water Supplies.

Lab. No. W.	Locality.—	Source—	Ownership—	Kind of Treatment—	Sanitary Condition as Shown —by— Laboratory Investigation.	Recom.
5444–45	Billings	Yellowstone River	Municipal	Disinfection	Satisfactory.	
5151–45	Billings	Yellowstone River	Municipal	Disinfection	Unsatisfactory.	O. La.
5412	Billings	Yellowstone River	Municipal	Disinfection	Satisfactory.	
5611–12	Billings	Yellowstone River	Municipal	Filtration, Disinfection	Unsatisfactory.	O. La.
5998–6001	Billings	Yellowstone River	Municipal	Filtration, Disinfection	Unsatisfactory.	O. La.
5987–90	Billings	Yellowstone River	Municipal	Filtration, Disinfection	Unsatisfactory.	O. La.
5924–43	Billings	Yellowstone River	Municipal	Filtration, Disinfection	Unsatisfactory.	O. La.
4906–10	Chinook	Milk River	Municipal	Disinfection	Satisfactory.	R.
5031–33	Chinook	Milk River	Municipal	Disinfection	Unsatisfactory.	O. La.
5102–08	Chinook	Milk River	Municipal	Disinfection	Unsatisfactory.	O. La.
5441–44	Chinnok	Milk River	Municipal	Filtration, Disinfection	Unsatisfactory.	O. La.
5069	Chinook	Well	Proposed	None	Unsatisfactory.	M.
5276	Columbus	Yellowstone River	Municipal	Filtration	Satisfactory.	La.
5338–43	Columbus	Yellowstone River	Municipal	Filtration	Unsatisfactory.	O. La.
5350–52	Glendive	Yellowstone River	Municipal	Disinfection	Unsatisfactory.	O. La.
5448–53	Glendive	Yellowstone River	Municipal	Disinfection	Satisfactory.	R.
5353–55	Glendive	Yellowstone River	N. P. Ry. Co	Disinfection	Unsatisfactory.	O. La.
5450–52	Glendive	Yellowstone River	N. P. Ry. Co	Disinfection	Unsatisfactory.	O. La.
6007	Glendive	Yellowstone River	N. P. Ry. Co	Disinfection	Unsatisfactory.	O. La.
5043	Miles City	Yellowstone River	Municipal	Filtration	Unsatisfactory.	O. La.
5128–33	Miles City	Yellowstone River	Municipal	Filtration	Unsatisfactory.	La.
5190–95	Miles City	Yellowstone River	Municipal	Filtration	Satisfactory.	La.
5455–56	Miles City	Yellowstone River	Municipal	Filtration	Satisfactory.	La.
6004	Miles City	Yellowstone River	Municipal	Filtration	Unsatisfactory.	O. La.

DIVISION OF FOODS AND DRUGS

H. M. Shea, Analyst.

Eleven hundred and three samples of foods and drugs were reported to the Secretary of the State Board of Health during the biennial period ending November 1, 1916. The following is a classification of foods analyzed:

	Total.	Illegal.
Butter	53	40
Canned vegetables and fruit	3	1
Catsup	2	....
Cereals and Cereal products	5	1
Coffee	1	....
Coloring compounds	8	1
Confectionery	3	....
Fish	4	4
Flavoring extracts	3	1
Fruit juices and cider	2	2
Grape fruit	2	....
Jellies and jams	2	....
Lard	10	4
Meat, pork and beef	7	....
Bologna	25	8
Hamburger	100	68
Pork sausage	34	19
Weiner wurst	12	2
Milk	181	32
Cream	25	7
Ice cream	90	19
Miscellaneous	6	1
Molasses	1	....
Mustard, prepared	1	....
Olive oil or sweet oil	4	2
Preservatives	16	3
Spices	5	....
Vinegars	16	6
Total number food samples	631	221

Per cent illegal, 35.0.

As stated in the last biennial report, it is the policy of this department to make a complete state survey of such food products on the market as are found to be liable to adulteration. Analyzing miscellaneous lots of samples selected at random is a waste of time; for it must be remembered that for each adulterated food product found upon the market, there is a great number free from adulteration. Federal inspection and cooperation on foods and drugs entering the state makes it possible to protect the public with a minimum working force. It will be noted in the general summary of foods and drugs analyzed, that the percent of samples illegal for a given product, runs highest in the cases where a great number of samples of that particular product have been taken. We believe this result justifies the work done by the state and is a compliment to the efficiency of the inspection service. It should be understood that while 35% of all samples analyzed were illegal, this does not mean that 35% of all food and drug products on the markets of Montana are adulterated. The samples submitted for analysis represent careful selection by trained inspectors.

It would be difficult to estimate what percentage of food and drug products on the general market is adulterated. Some authorities have roughly estimated that 1% is adulterated and 99% pure. The publicity this 1% receives far exceeds that of the 99%. Sensational writers are prone to exaggerate conditions, but a fair representation of facts through the medium of the press can do much good. Public opinion, once formed, is the most powerful agency in enforcing just legislation. The function of this department is to aid in the enforcement of the Food and Drug Act, enacted by the people for their protection.

Detailed accounts of samples analyzed appear in monthly bulletins of the State Board of Health. Brief accounts and comments on samples analyzed during the biennial period follow:

COLORED COMPOUNDS AND PRESERVATIVES.

Coloring Compounds.

Various coloring compounds are on the market for use in coloring foods and beverages. Permitted colors may be used under certain conditions. An article of food is considered adulterated if it is colored whereby damage or inferiority is concealed, and whereby it is made to appear better or of greater value than it really is. In the case of small sausages, bologna, and weiner wursts, harmless dyes are permitted if the casing is such that the colors cannot penetrate through into the contents. If cloth casings are used, the sausages must first be coated with paraffin before color is applied. Further regulations of the State Board of Health require a statement of the presence of coloring matter on each package. Formerly, retailers of meat products were permitted to display a placard in their place of business stating that artificial color was used on this class of meat products.

In the case of soda fountain supplies, syrups, and beverages. a placard must be displayed stating that artificial color is used. The same rule applies to artificial flavors. In the case of confections, certified permitted dyes are allowed.

While there is some difference of opinion among officials throughout the states in regard to the use of any coal tar dye, certain advantages of their use are evident. First, intensity of color necessitates the use of very minute quantities. Secondly, permanence of color is preferable to varieties of vegetable dyes that fade. Permitted dyes must be certified to by manufacturers and must be of guaranteed purity. The Montana State law is identical with the Federal law in this respect and permits the use of eight coal tar dyes under restrictions as outlined above. The following is a list of permitted coal tar dyes:

Red Shades:	
107	Amaranth.
56	Ponceau, 3R.
517	Erythrosine.
Orange Shade:	
85	Orange I.
Yellow Shades:	
4	Naphthol Yellow I.
94	Tartrazine.
Green Shade:	
435	Light green, S. F. Yellowish.
Blue Shade:	
692	Indigo disulpho acid.

Eight coloring compounds were examined and of this number one was classed as illegal, being composed of Orange II, an illegal coal tar dye.

PRESERVATIVES.

Many preservative compounds are being sold to retail merchants throughout the state for the treatment of food products. The greater proportion of these preservative compounds are intended for meat and meat products. owing to the difficulty in keeping this class of food in a wholesome state for any length of time. The Montana Food and Drug Act, 1911, Chapter 130, Sec. 2, permits the use of "salt, saltpeter, cane sugar, beet sugar. vinegar, spices, or in smoked foods, the natural products of the smoking process, or other harmless preservatives whose use is authorized by the State Board of Health."

Many compounds under trade names were found to consist of various proportions of salt and saltpeter. Such compounds meet the requirements of the state law, and the exorbitant price paid for the trade name is the only objectionable feature.

Compounds containing sulphites of sodium and calcium have been sold in this state and unlawfully used in preserving meat products. These sulphite compounds are considered harmful to the digestive system and their use is illegal.

Boric acid and borate compounds are likewise not permitted because they are considered deletrious to health.

Formic acid and formaldehyde are illegal as preservatives and are not permitted in foods.

Benzoates, or benzoic acid is permitted in catsup and certain other foods with the restriction as to the amounts used and with a statement on the labels as to the quantity present.

Sixteen samples of preservative compounds were analyzed. Two samples contained benzoic acid. Two samples of formaldehyde. submitted as such, were found to comply with standards.

DAIRY PRODUCTS.

During the biennial period, considerable time was devoted to the analysis of dairy products. Many samples were submitted from various parts of the state by parties desiring to know if the milk was pure. Sec. 3, Chapter 130, Montana Food and Drug Act, 1911, defines at length the sanitary conditions and restrictions under which milk for human consumption shall be produced. This section is herewith given in full:

> "No person either by himself or his servant or agent or as the servant or agent of another person, shall sell, exchange or deliver. expose or offer for sale or exchange, adulterated milk, or milk to which water or any foreign substance has been added; milk produced from cows which have been fed on fermenting refuse from distilleries, breweries, or sugar factories or stable bedding or barnyard refuse; provided that fermenting pulp fed in conjunction with ground alfalfa and syrup be excepted; or from sick or diseased cows; or as pure, milk from which the cream or a part thereof has been removed; or milk collected or kept or handled under conditions which are not cleanly or sanitary and which do not conform to the rules and regulations of the State Board of Health made in conformity with the provisions of this Act; or milk containing less than eight and one-half (8½) per cent of milk solids, exclusive of fat, and three and twenty-five hundredths (3.25) per cent of milk fat; or milk which contains any added color or preservatives; or as cream, milk containing less than twenty (20) per cent of milk fat."

A chemical examination of milk consists of determining the physical properties; such as specific gravity, fat. and total solids not fat. Further examination is made for the detection of any added substances such as preservatives, water, etc. Oftentimes such an analysis shows no adulteration although the complaint is made that sickness has been caused by the milk. It would seem that some provision should be made by the state for the bacteriological examination of such samples. A bacterial count would be of more significance than a chemical examination on such samples. Some communities have passed ordinances making visible dirt sufficient evidence for prosecution.

MILK.

> "Milk is the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows pro-

> perly fed and kept, excluding that obtained within fifteen days before and five days after calving, and contains not less than eight and one-half (8½) per cent of solids not fat, and not less than three and twenty-five hundredths (3.25) per cent of milk fat."

One hundred and eighty-one samples were received and examined. Six samples contained formaldehyde, and twenty-six samples were below standard in butter fat, making a total percentage of 17.6 illegal.

CREAM.

> "Cream is that portion of milk rich in milk fat which rises to the surface of milk on standing or is separated from it by centrifugal force; is fresh and clean, and contains not less than 20% of milk fat."

Twenty-five cream samples were analyzed. Five contained formaldehyde and one was found to contain "viscogen" or sucrate of lime. One sample of cream was classed as illegal in that the butter fat content was below standard. Sucrate of lime is used to thicken cream whereby it is made to appear of better quality. This treatment also gives a consistency which makes it easy to whip the cream; while a cream of the same per cent of butter fat without viscogen could not be whipped.

Homogenized cream or cream that has been treated with emulsifying mixtures is occasionally offered for sale. Homogenized cream is cream that has been subjected to high pressure and passed between steel discs by which process the fat globules are so minutely divided that they will not again separate into a fat layer by gravity or standing. The term "homogenized cream" can be applied properly only to genuine cream which has been subjected to a homogenizing process, whereby it is made to appear thicker; because of this change in appearance all homogenized cream should be so labeled. The various emulsified mixtures which have more or less the semblance of cream, such as mixtures of butter or butter fat with skimmed milk or milk powder and water, or mixtures of heavy cream with milk powder and water, are neither "cream" nor "homogenized cream" and cannot be legally sold under either of these names. Since such products resemble genuine cream, they should be labeled and sold under names making known their true nature.

ICE CREAM.

> "Ice cream is the frozen product made from cream, gelatin and sugar, with or without flavoring, and contains not less than 14% of milk fat and not more than .8% of pure gelatin."
>
> "Fruit ice cream is the frozen product made from cream, sugar, and sound, clean, mature fruits, and contains not less than 12% of milk fat."

Ninety samples of ice cream were analyzed during the past two years. Of this number, sixteen were as illegal because of low butter fat content. Three samples were found to contain the preservative, boric acid. Several samples of homogenized ice cream were analyzed. Homogenized ice cream, when prepared from fresh, wholesome materials, is entitled to recognition and legitimate sale. Some distinction should be made however, and homogenized products should be labeled and sold as such.

BUTTER.

The State Board of Health in regulations adopted, defines butter as "the clean, non-rancid product made by gathering in any manner the fat of fresh or ripened milk or cream into a mass which also contains a small portion of the other milk constituents, with or without salt or added coloring matter and contains not less than 82.5% of milk fat."

Fifty-three samples of butter were examined during the past two years. Of this number, two were classed illegal because of rancidity. Twenty-two samples were classed illegal from the fact that the butter fat content was below 82.5%. Sixteen samples were short weight. One sample of process butter purchased as such was properly labeled and conformed to the standard.

MEAT AND MEAT PRODUCTS.

A state survey of meat and meat products revealed the fact that the practice of using illegal preservatives was common over the state. The list of illegal preservatives found, included sulphites, borates, and benzoates. In a few instances illegal coal tar dyes were used, and in several cases cereal fillers were found. Sausage and chopped meats darken and spoil easily, especially during the warm months; hence the use of preservatives. The most common preservative found was sulphite. Besides being used to deodorize stale meat, sulphites are used for preserving, for reddening, and for giving meat a fresh appearance.

Fifty-three and seven-tenths per cent of one hundred and eighty-eight meat and meat product samples analyzed were illegal. A detailed account follows:

	Total.	Illegal
Meat, pork and beef	7	....
Lard	10	4
Bologna	25	8
Hamburger	100	68
Pork sausage	34	19
Weiner wurst	12	2
Total number samples	188	101

Percentage Illegal, 53.7.

PORK AND BEEF.

Under minimum standard of food products, meat and meat products are defined: "Meat flesh is any clean, sound, dressed and properly prepared and handled edible part of animals in good health at time of slaughter."

Many samples of meat are submitted each year with requests for examination for the presence of poisonous substances. In the majority of cases, these samples are very small portions and oftentimes in such a state of decomposition on arrival at the laboratory that examination is valueless. Meat that has a disagreeable odor and taste requires no further examination but should be destroyed. In questionable cases, the only logical procedure would be to have a qualified veterinarian make an examination of the entire carcass, including the principal organs, if such are available. Ante-mortem and post-mortem examination of animals would ultimately eliminate many diseases and insure a high grade of meat to the public. The state must eventually establish meat inspection service, similar to the present Federal inspection on meats entering inter-state commerce at the present time. Meat and milk are perishable commodities and always will be, and the wholesomeness of the same will be in direct proportion to the completeness of the inspection service.

Seven samples of meat, pork and beef, were submitted during the past two years. These samples were all suspected of having caused poisoning. Four samples were in an advanced stage of decomposition on arrival at the laboratory. No added substances of poisonous character were found in three samples examined.

LARD.

Lard is defined as "the fresh fat from hogs in good health at the time of slaughter, is clean, free from rancidity, and contains necessarily incorporated in the process of rendering, not more than 1% of substance other than fatty acids and fat."

"Leaf lard is lard rendered at moderately high temperatures from the internal fat of the abdomen of the hog, excluding that adherent of the intestines and has an iodine number not greater than sixty."

Producers of lard have in the past been careless in applying the term "leaf lard" to the fat rendered from the entire fatty portions of the hog. This constitutes a misbranding. Another practice has been to add various amounts of beef fat; and while some maintain that this improves the lard for certain uses in cooking, the fact remains that this is a violation of the Food and Drug Act. Such mixtures should be sold as "lard compounds" and labeled as such, stating the approximate amount of beef fat contained therein.

Ten samples of lard were examined of which number four were adulterated with beef fat.

BOLOGNA SAUSAGE.

> "Sausage or sausage meat shall be held to be a comminuted meat from meat cattle or swine; or a mixture of such meats, either fresh, salted, pickled or smoked, with added salt and spices and with or without the addition of edible animal fats, blood and sugar, or subsequent smoking. It shall contain no larger amount of water than the meats from which it is prepared contained when in their fresh condition, and if it bears a name descriptive of kind, composition, or origin, it must correspond to such descriptive name. All animal tissues used as containers, such as casings, stomachs, etc., must be clean and sound and impart to the contents no other substance than salt. All sausage found to contain any

cereal, or added water or other substances, except as herein stated, shall be deemed to be adulterated."

Twenty-five samples of bologna were analyzed. One sample contained sulphites. Seven samples were adulterated with starch, and one sample was adulterated in that the preservative, boric acid, was used and the casing was artificially covered with Orange II, an illegal coal tar dye.

Detailed tables are given below showing the localities in which the samples were collected:

City—	Legal.	Illegal.	Total.
Chester	....	1	1
Cut Bank	....	1	1
Havre	1	....	1
Helena	8	4	12
Kalispell	1	1	2
Livingston	5	....	5
Miles City	1	1	2
Whitehall	1	....	1
Totals	17	8	25

Percentage of samples illegal, 32.0.

HAMBURGER.

Regulations pertaining to the character of materials in preparing hamburger have already been quoted. (Note regulations pertaining to sausage meats in preceding paragraph).

One hundred samples of hamburger were analyzed. Of this number 68 samples were found to be illegal, in that they contained sulphite, a prohibited preservative.

City—	Legal.	Illegal.	Total.
Billings	----	5	5
Bozeman	3	1	4
Butte	4	24	28
Columbus	----	1	1
Cut Bank	1	----	1
Forsyth	----	1	1
Glendive	----	2	2
Hamilton	----	2	2
Havre	1	1	2
Helena	4	11	15
Ismay	----	1	1
Kalispell	----	2	2
Laurel	1	1	2
Lewistown	1	2	3
Livingston	1	4	5
Melstone	1	----	1
Miles City	5	2	7
Missoula	1	4	5
Poplar	----	1	1
Red Lodge	3	1	4
Terry	----	1	1
Wibaux	----	1	1
*Great Falls	6	----	6
Totals	32	68	100

Percentage of samples illegal, 68.0.

*Samples spoiled enroute to laboratory—unfit for analysis for official purposes.

PORK SAUSAGE.

Nineteen of thirty-four samples of pork sausage contained sulphites and were classed as illegal.

City—	Legal.	Illegal.	Total.
Butte	7	12	19
Forsyth	....	1	1
Hamilton	....	1	1
Helena	1	....	1
Livingston	2	2	4
Miles City	1	1	2
Missoula	2	3	5
Shelby	1	....	1
Totals	14	20	34

Percentage of samples illegal, 58.8.

WEINER WURST.

Thirteen samples of weiner wurst were analyzed. One sample contained starch and one sample was found to contain boric acid.

City—	Legal.	Illegal.	Total.
Chester	1	....	1
Havre	....	1	1
Helena	6	1	7
Kalispell	2	....	2
Livingston	1	....	1
Totals	10	2	12

Percentage of samples illegal, 16.6.

FRUITS AND FRUIT JUICES

Flavoring Extracts.

"A true flavoring extract is a solution of ethyl alcohol of the proper strength fo the sapid and odorous principles derived from an aromatic plant or parts of the plant, with or without its coloring matter and conforms in name to the plant used in its preparation."

"An artificial flavoring extract is a solution in ethyl alcohol of the proper strength of certain organic esters and acids with or without artificial coloring matter. Such extracts must be composed of harmless principles

> and each package must bear statement of its artificial nature."

True extracts of pineapple, raspberry, strawberry, and banana are difficult of preparation and the majority of such extracts on the market are artificial.

Three samples of flavoring extracts were analyzed. One sample of artificial raspberry extract was found illegal in that the color present was fuchsine, an illegal coal tar dye.

Cider and Lemon Juice.

> "Cider, hard cider, is the product made by the normal alcoholic fermentation of apple juice, and the usual cellar treatment, and contains not more than 7% by volume of alcohol; and, in one hundred cubic centimeters of cider, not less than two grams nor more than twelve grams of solids, nor more than eight grams of sugar, in terms of reducing sugars, and not less than twenty centigrams nor more than forty centigrams of cider ash."

Two samples of this class were analyzed. One sample of cider was classed as illegal in that is contained 9.7% of alcohol by volume. One sample of bottled lemon juice taken from a large stock of the same was moldy and decomposed and unfit for human consumption.

Grape Fruit.

In recent years, attention has been brought to the fact that some producers of citrus fruits have made a practice of sending green, immature fruit to market and sweating it enroute to obtain a ripened appearance. This, according to the Food and Drug Act, constitutes an adulteration in that inferiority is concealed and the product is made to appear better than it really is. The Bureau of Chemistry after considerable investigation found that while there is a great variation between the acid content and soluble total solids in the green fruit, this ratio approaches 1 to 7 or one part of acid to seven parts of total soluble solids in the tree ripened product. The acid content is calculated to citric acid without water of crystallization. This tentative standard has been adopted for grape fruit. Soluble solids must be equal to or in excess of seven parts to each part of acid present.

The ratio for Florida and California oranges is 1 to 8, the acid to be calculated as above.

Two samples of grape fruit analyzed showed ratios of 1 to 5.65 and 1 to 6.6. Both samlpes were classed as illegal under tentative standards in accordance with the Bureau of Chemistry ruling.

Canned Fruits and Vegetables.

Canned products have come into general use and constitute a valuable part of our food supply. The industry has now reached such a stage of perfection that there is very little complaint against this class of goods. Complete sterilization prevents putrefactive changes, and chemical preservatives are unnecessary. If sterilization has not been properly carried out, which is rarely the case, fermentation or decomposition is readily detected by swelling from gas production or by the disagreeable odor and taste on opening. In view of the above facts, and as a result of satisfactory reports from the inspection service on market conditions, laboratory analyses were made only on such samples as required special investigation.

One sample of canned apples was examined for adulterants with negative results. This sample was slightly fermented on arrival at the laboratory, but this condition may have been the result of standing after opening.

Two samples of canned peas were examined and one was found to contain copper sulphate. It appears that this sample was a remnant of stock shipped into the state prior to January 1, 1913.

The question of permitting the use of copper sulphate in the greening of vegetables was submitted to the Referee Board of Consulting Scientific Experts by the Secretary of Agriculture, March 11, 1909, and their findings follow:

> "It appears from our investigation that in certain directions even small quantities as 10 to 12 millegrams of copper sulphate consumed daily may have a deleterious action and must be considered injurious to health."

Furthermore, the Food and Drug Act, June 30, 1906, declares a food to be adulterated "if it contains any ingredient which may render such article injurious to health" or "if a food is colored in a manner whereby damage or inferiority is concealed."

Under this Act of 1906, foods containing copper sulphate are adulterated, in that this chemical is injurious and inferiority is concealed, or the product made to appear better than it really is.

CONDIMENTS.

Catsup.

> "Catsup is the clean, sound product made from the properly prepared pulp of clean, sound, fresh, ripe tomatoes, with spices and with or without sugar and vinegar."

The United States Department of Agriculture, Bureau of Chemistry in Circular 68, defines certain desirable maximum limits; "twenty-five million bacteria per cubic centimeter, twenty-five yeasts and spores per one-sixtieth millimeter, and moulds in less than 25% of fields."

Other factors are taken into consideration in rendering a decision as to whether or not the catsup is fit for human consumption.

The principle form of adulteration in the past has been from the use of decomposed and spoiled tomato pulp. The use of artificial color and illegal preservatives is now rare. One-tenth of 1% of sodium benzoate is permitted, if a statement of the fact appears on the label.

Two samples of catsup were examined and found to comply with regulations.

Jellies.

Two samples of jelly were examined and found to be labeled in accordance with the Food and Drug Act and to comply with standards.

Mustard.

One sample of prepared mustard was examined. No adulterant was found.

Olive Oil or Sweet Oil.

Investigation of edible oils for sale in the state disclosed the fact that there has been some misunderstanding in the use of the term "sweet oil." In order to correct this error, Food Inspection Decision 139, issued by the Department of Agriculture, February 23, 1912, is herewith given:

> "Investigations have shown that some samples marked 'sweet oil' consisted of cotton seed oil or a mixture of olive oil and cotton seed oil. A careful consideration of

> the subject leads to the conclusion that the only oil to which the term 'sweet oil' may be correctly applied is olive oil. It is held, therefore, that any oil other than olive oil is misbranded when sold under the name, 'sweet oil.' It is not correct for example, to label cotton seed oil as sweet 'oil' and then elsewhere on the label to describe correctly the true character of the oil."

Three samples of olive oil were analyzed and two of this number were found to consist principally of cotton seed oil.

Spices.

Ground spices on the market now are found in sealed packages and are less liable to adulteration than they formerly were when sold in bulk form.

Five samples of spices were submitted and all were found to comply with standards.

Vinegar.

In this state, the term vinegar refers only to cider vinegar. Other vinegars must be retailed under their various names such as malt vinegar, distilled vinegar, etc. It is unlawful, for example, to retail distilled vinegar to a buyer who asks for vinegar, without acquainting him of the fact that the product is not cider vinegar.

According to the State Board of Health regulations, vinegar is "the product made by the alcoholic and subsequent acetous fermentations of the juice of apples, is laevo-rotary and contains not less than four grams of acetic acid and not less than one and six-tenths of apple solids, of which not more than 50% are reducing sugars and not less than .25 grams of apple ash in one hundred cubic centimeters at 20° C; and the water soluble ash from one hundred cubic centimeters at 20° C. of the vinegar contains not less than ten milligrams of phosphoric acid (P^2O^5), and requires not less than thirty cubic centimeters of deci-normal acid to neutralize its alkalinity."

Sixteen samples of vinegar were analyzed, and of this number, six were reported illegal in that the acid content was below standard.

Considerable vinegar is manufactured in this state, especially in the western portions. Oftentimes fermentation has not sufficiently proceeded in order to produce the required acidity. The ordinary producer is not generally prepared to make even an approximate analysis of the vinegar, and many of the samples that have been analyzed have been submitted by such parties. It is the desire of this department to render such assistance as is possible to encourage this industry in the state.

MISCELLANEOUS.

Seven miscellaneous samples submitted by parties over the state were examined for informational purposes. One sample of lard purifier was found to consist of ordinary baking soda or sodium bi-carbonate. Such a compound is undoubtedly intended for renovating stale or rancid lard.

One sample of "cream-thick," a patent preparation for thickening ice cream, was examined and found to consist of India gum and corn starch. This sample was classed as illegal, owing to false and misleading statements present on the package. The use of such a compound in the manufacture of ice cream is contrary to state regulations.

Mrs. Price's canning compound, of historic fame, was examined and found to consist principally of boric acid, a preservative, the use of which in canned goods is a violation of the state law. This preparation has been analyzed in various states and found variable in character; sometimes a compound of benzoic and boric acids, at other times pure boric acid. For a number of years this preparation enjoyed an extended sale under this unassuming name. The housewife used this preparation because the results were satisfactory whether canning was properly performed or not. Owing to the publicity which this deleterious preservative has received in recent years, the sale of this compound is now practically discontinued in this state.

Other miscellaneous preparations analyzed were found to be properly labeled and complied with the regulations.

Confectionery.

Three samples of candy examined conformed to standards of purity. Colors present in all cases were permitted dyes.

Fish.

Of four samples of fish examined, three were found to be colored directly with coal tar dyes and were classed as illegal. This orange-red color was found on examination to penetrate about 1/4 inch. No statement of artificial color accompanied the package, and even such statement would not justify the use. In each case, inferiority was concealed and the fish were made to appear of a different and better variety than they really were.

One sample suspected of poisoning was found to contain arsenic.

Molasses.

One sample of molasses was analyzed and found to be correctly labeled and conformed to standards.

Coffee.

One sample of ground cofffee was examined and found to conform to standards.

Cereal Products.

Of five samples received at the laboratory, one sample was reported illegal. This sample of bread was contaminated with dirt and showed lack of cleanliness in manufacture. One sample of flour, sold extensively under a trade name, proved to be wheat flour on examination. This product has been sold to butchers as a filler for sausage and bologna. One butcher admitted that a good sausage maker using such a flour as an absorbent, could incorporate from 15 to 20 pounds of water with every 100 pounds of meat. Such a practice is a violation of the Montana Food and Drug Act. (See definition under sausage meat.)

DIVISION OF DRUGS.

Four hundred and seventy-two samples of drugs were received and analyzed at this laboratory .The general summary of these samples follows:

Sample—	Total.	Number not passed.	Per Cent not passed.
Tincture of iodine	142	84	59.2
Lime water	129	26	20.2
Tincture of iron	94	28	29.8
Fowler's solution	39	13	33.3
Dilute hydrochloric acid	12	4	33.3
Liquified phenol	11	1	9.9
Spirit of peppermint	11	2	18.2
Camphor liniment	9	6	66.6
Miscellaneous	25	4	16.0
Totals	472	168	35.6

This general summary of drug samples analyzed shows the results of the first drug survey of Montana. The samples purchased were of the more common type sold to the public. The object of this survey was to ascertain the general condition of the more common preparations and to formulate such plans for the betterment of conditions as would seem warranted. Such inspection eventually protects the merchant against unfair competition and unjust criticism and protects the public against fraud. The United States Pharmacopocia Eighth revision, official during this biennial period, was used as a standard, and preparations were analyzed according to methods given and the calculations made to U. S. P. VIII strength. Reasonable margins, plus or minus, have been permitted and samples have been classed as passed or not passed.

Attention is called to the fact that the United States Pharmacopocia Ninth Revision has been published and is now official for future work. Certain tentative standards of limit, plus or minus U. S. P. VIII strength, were adopted by the State Board of Health. Reasonable limits for valuable constituents of U. S. P. preparations are clearly defined in the Ninth Revision and will be observed. Druggists are advised to purchase a new copy as soon as possible.

The majority of samples analyzed were purchased by inspectors and shipped to the laboratory for official analysis. Several samples have been submitted by druggists and analyzed for informational purposes. It is our desire to be of service to the druggists of the state in this capacity.

In the general summary of drugs analyzed, it will be noted that about 35% are classed as passed. It may be of interest to mention that this percentage compares favorably with report from other states and strikes an average with such statistics as we have at hand. This is gratifying in view of the fact that this is the first biennial period in which extensive drug inspection has been carried on, and contradicts the statements of some news writers that Central and Eastern states were more free from drug adulteration.

For the improvement of pharmaceutical preparations, we advise what Food and Drug officials have advised since Food and Drug control began. Each store should have on hand and use the official Pharmacopocia and National Formulary in making all preparations governed by these two authorities. Chemicals used should meet the requirements of the U. S. P. and should be stored and kept according to the U. S. P. directions preceding use. Each store should have a complete set of weights and graduates, including the metric system. Weights and graduates as well as scales and balances should be purchased under guarantee of accuracy. The purchase and use of cheap working material is false economy and leads to inaccuracy and poor preparations. Druggists should make their own U. S. P. and N. F. preparations and place their good name back of them. Wholesale products should be purchased under a guarantee of conformity to state laws and left in original containers until soild, thereby placing responsibility for such preparations upon the manufacturers.

The following brief tables show the results obtained on four hundred and seventy-two drug samples from one hundred and forty-five stores in fifty-one cities and towns of the state:

Tincture of Iodine.

Tincture of iodine should contain 6.86 grams of iodine and 5.0 grams of potassium iodide in each 100 cubic centimeters of alcoholic solution. The alcohol used should conform to all tests given under the official alcohol.

Samples Passed.

Lab. No.	Iodine	U.S.P. strength	Pot. Iodide	U.S.P. strength
F 5401	7.67	110.0	5.66	113.2
F 5405	6.77	98.6	5.93	118.6
F 5406	7.44	108.4	4.72	94.4
F 5409	6.63	96.6	4.61	92.2
F 5410	7.00	102.0	5.02	100.4
F 5463	6.93	101.3	4.15	83.0
F 5464	7.18	104.6	5.12	102.4
F 5466	7.26	105.8	4.97	99.4
F 5470	6.80	99.1	5.00	100.0
F 5473	7.38	107.6	5.04	100.8
F 5474	7.51	109.5	5.00	100.0
F 5475	7.41	108.0	4.78	95.6
F 5479	6.60	96.2	4.80	92.0
F 5482	6.47	94.3	5.40	108.0
F 5484	7.39	107.7	5.48	109.6
F 5485	6.60	96.2	4.49	89.8
F 5489	6.65	96.9	5.22	104.4
F 5490	7.08	103.2	4.70	94.0

Lab. No.	Iodine	U.S.P. strength	Pot. Iodide	U.S.P. strength
F 5341	6.78	98.8	5.22	104.4
F 5342	6.80	99.1	5.00	100.0
F 5348	6.30	91.8	5.35	107.0
F 5353	6.47	94.3	4.63	92.6
F 5355	6.65	96.9	5.24	104.8
F 5357	6.45	94.0	4.52	90.4
F.5399	7.09	103.0	5.09	101.8
F 5533	7.05	102.7	5.20	104.0
F 5544	6.68	97.4	4.70	94.0
F 5549	7.03	102.5	5.48	109.6
F 5550	6.96	101.5	5.25	105.0
F 5552	6.63	96.6	4.65	93.0
F 5556	7.26	105.8	4.32	86.4
F 5557	6.78	98.8	4.83	96.6
F 5560	6.19	90.2	4.37	87.4
F 5561	7.46	107.4	4.97	99.4
F 5562	6.32	92.1	4.79	95.8
F 5565	6.93	101.0	5.24	104.8
F 5567	6.88	100.0	5.57	111.4
F 5568	6.50	94.7	4.56	91.2
F 5569	7.36	107.3	4.48	89.6
F 5570	7.16	104.4	5.16	103.2
F 5713	7.26	105.8	5.34	106.8
F 5693	7.46	108.7	5.41	108.2
F 5694	7.18	104.7	5.13	103.6
F 5695	7.13	102.5	5.08	101.6
F 5700	7.36	107.3	4.71	94.2
F 5701	6.80	99.1	4.55	91.0
F 5702	6.60	96.2	5.07	101.4
F 5709	7.05	102.8	5.56	111.2
F 5710	7.16	104.4	4.57	91.4
F 5712	7.10	103.5	4.91	98.2
F 5642	7.18	104.7	5.75	115.0
F 5907	7.06	102.9	5.75	115.0
F 5909	7.23	105.4	5.13	102.6
F 5910	7.56	110.2	5.32	106.4
F 5913	6.90	100.0	4.57	91.4
F 5914	7.06	103.0	5.07	101.4
F 5916	7.54	110.0	5.15	103.0
F 5924	6.80	100.0	4.81	96.2

Total number samples passed, 58.

Samples Not Passed.

Lab. No.	Iodine	U.S.P. strength	Pot. Iodide	U.S.P. strength
F 5343	7.16	104.3	3.81	76.2
F 5344	6.30	91.8	2.49	49.0
F 5345	4.98	72.5	None	....
F 5346	5.47	79.7	3.47	69.4
F 5347	7.36	107.2	7.75	155.0
F 5349	1.32	19.2	.46	.09
F 5350	9.15	133.3	6.90	138.0
F 5351	5.64	82.3	1.30	26.0
F 5352	6.09	88.9	None	....
F 5354	5.15	75.2	2.62	52.4
F 5356	15.07	219.6	10.49	209.8
F 5398	6.27	91.4	3.89	77.8
F 5400	7.94	115.8	6.46	129.2
F 5402	5.79	84.3	3.35	67.0
F 5403	5.30	77.2	None	....
F 5404	5.79	84.0	None	....
F 5407	7.05	102.7	3.40	68.0
F 5408	5.43	79.1	2.40	48.0
F 5462	6.57	95.8	3.68	73.6
F 5465	8.35	121.7	5.76	115.2
F 5467	5.81	84.7	4.46	89.2
F 5468	4.34	63.2	3.58	71.6
F 5469	6.63	96.6	3.16	63.2
F 5471	7.51	109.5	6.82	136.4
F 5472	6.04	88.2	4.75	95.0
F 5476	5.05	73.6	2.92	58.4
F 5477	9.75	142.1	4.73	94.6
F 5478	12.00	176.4	None	....
F 5480	6.61	96.3	3.50	70.0
F 5481	10.10	147.2	6.68	133.6
F 5483	5.81	84.7	5.19	103.8
F 5486	10.0	145.8	None	....
F 5487	4.87	71.0	8.48	169.6
F 5488	4.75	69.2	2.78	55.6
F 5491	6.75	98.4	3.74	74.8
F 5542	3.07	44.7	None	....
F 5543	3.58	52.2	None	....
F 5545	7.64	111.4	5.14	103.0
F 5546	3.22	46.9	3.26	65.2
F 5547	5.91	87.6	4.16	83.2
F 5548	5.71	83.2	2.50	50.0
F 5551	4.60	67.0	3.49	69.8
F 5553	6.80	100.0	6.20	124.0
F 5554	5.03	73.3	3.48	69.6
F 5555	5.64	82.2	4.10	82.0
F 5558	6.02	87.7	2.67	53.4

Lab. No.	Iodine	U.S.P. strength	Pot. Iodide	U.S.P. strength
F 5559	3.30	48.1	None	....
F 5563	6.52	95.0	2.65	53.0
F 5564	3.93	57.3	4.85	97.0
F 5566	5.91	86.1	None	....
F 5691	5.53	80.6	4.53	90.6
F 5692	7.28	106.1	3.95	79.0
F 5696	7.74	112.1	5.16	103.2
F 5697	7.69	112.1	5.58	111.6
F 5703	5.33	77.7	None	....
F 5704	6.83	99.5	7.49	149.8
F 5705	6.37	92.9	3.33	66.6
F 5706	5.53	80.6	.56	11.26
F 5707	7.10	103.5	.34	6.84
F 5708	5.66	82.5	3.57	71.4
F 5711	5.91	86.1	4.49	89.8
F 5900	4.77	69.5	None	....
F 5901	5.64	82.2	3.23	64.6
F 5902	1.09	15.9	None	....
F 5903	8.93	130.2	7.19	143.8
F 5904	6.12	89.2	3.30	66.0
F 5905	5.86	85.4	5.09	101.8
F 5906	5.76	84.0	2.82	56.4
F 5908	7.21	105.1	3.56	71.2
F 5911	4.82	70.2	None	....
F 5912	5.28	77.0	4.75	95.0
F 5915	7.26	105.8	3.18	63.6
F 5917	6.65	96.9	3.43	68.6
F 5918	7.54	110.0	5.81	116.2
F 5919	7.62	111.0	5.39	107.8
F 5920	3.81	55.5	None	....
F 5921	7.84	114.3	4.05	81.0
F 5922	6.50	97.0	4.10	82.0
F 5923	8.05	117.3	5.00	100.0
F 5925	6.04	88.0	3.83	76.6
F 5926	7.56	110.0	3.40	68.0
F 5927	5.86	85.4	2.66	53.2

Total number samples not passed, 84.
Percentage of samples not passed, 59.2.

A 10% margin plus or minus U. S. P. strength was permitted on the iodine content and a 15% margin on potassium iodide. According to this standard about 60% of the samples analyzed were classed as not passed. It will be noted that in fifteen samples, potassium iodide has been omitted entirely. In one case denatured alcohol was used as a solvent. Solutions differing in strength from the U. S. P. tincture of iodine may be sold as solution of iodine but not as tincture of iodine without violating the Food and Drug Act.

Carelessness in weighing and measuring or the use of inaccurate weights and graduates probably account for the greater number of samples not passed.

Lime Water.

Lime water should contain not less than .14¼ of pure calcium hydroxide —$Ca(OH)^2$— in solution.

Samples Passed.

Lab. No.	%$Ca(OH)^2$	Lab. No.	%$Ca(OH)^2$
F 5326	.15	F 5456	.17
F 5327	.16	F 5457	.16
F 5328	.14	F 5458	.17
F 5329	.14	F 5459	.15
F 5330	.15	F 5460	.17
F 5332	.15	F 5461	.15
F 5334	.15	F 5599	.16
F 5337	.16	F 5600	.16
F 5338	.17	F 5601	.17
F 5339	.15	F 5603	.15
F 5340	.14	F 5604	.16
F 5411	.17	F 5605	.16
F 5413	.14	F 5606	.16
F 5415	.16	F 5607	.15
F 5416	.16	F 5608	.16
F 5417	.14	F 5609	.17
F 5419	.17	F 5611	.16
F 5420	.17	F 5612	.17
F 5422	.16	F 5614	.15
F 5423	.17	F 5615	.17
F 5434	.14	F 5616	.17
F 5436	.16	F 5617	.17
F 5437	.16	F 5618	.16
F 5438	.14	F 5619	.17
F 5439	.17	F 5620	.16
F 5440	.15	F 5621	.17
F 5441	.16	F 5622	.15
F 5442	.16	F 5623	.17
F 5444	.15	F 5714	.14
F 5445	.17	F 5715	.16
F 5446	.16	F 5716	.16
F 5447	.14	F 5717	.17
F 5448	.15	F 5719	.14
F 5449	.16	F 5720	.16
F 5451	.17	F 5721	.15
F 5454	.16	F 5722	.17
F 5724	.15	F 5725	.14
F 5728	.16	F 5729	.17

Lab. No.	% $Ca(OH)_2$	Lab. No.	% $Ca(OH)_2$
F 5730	.16	F 5731	.16
F 5732	.14	F 5734	.15
F 5735	.16	F 5532	.15
F 5853	.14	F 5854	.15
F 5856	.15	F 5857	.16
F 5858	.17	F 5859	.15
F 5860	.15	F 5861	.15
F 5862	.16	F 5863	.15
F 5864	.14	F 5865	.16
F 5866	.16	F 5867	.15
F 5868	.16	F 5870	.17
F 5871	.15	F 5872	.15
F 5873	.16	F 5874	.16
F 5875	.16		

Total number samples passed, 103.

Samples Not Passed.

Lab. No.	% $Ca(OH)_2$	Lab. No.	% $Ca(OH)_2$
F 5331	.09	F 5333	.09
F 5335	.12	F 5336	.03
F 5412	.13	F 5414	.08
F 5418	.13	F 5421	.13
F 5424	.04	F 5433	.09
F 5435	.12	F 5443	.07
F 5450	.13	F 5452	.12
F 5453	.12	F 5455	.09
F 5602	.12	F 5610	.11
F 5613	.12	F 5718	.05
F 5723	.13	F 5726	.11
F 5727	.06	F 5733	.11
F 5855	.02	F 5869	.10

Total number samples not passed, 26.

Percentage of samples not passed, 20.2.

Calcium hydroxide if exposed to air, gradually absorbs carbon dioxide, forming the insoluble calcium carbonate. It has been the custom in some cases to refill the lime water container with more water without renewing the calcium oxide content. This practice soon results in dispensing a weak solution. Extemporaneous preparation of lime water through the use of compressed tablets of calcium oxide does not usually produce satisfactory solutions. The Pharmacopoeia directs that distilled water shall be used and not ordinary tap water, otherwise precipitation of insoluble calcium compounds takes place and the calcium hydroxide content is reduced. Calcium oxide being more soluble in cold than in hot water, the per cent present in saturation varies from .14 to .17%. The solution should be kept in a cool place with an excess of calcium oxide present. With reasonable care exercised, weak solution of lime water such as listed above would disappear from the market.

Tincture of Iron.

Tincture of iron is a hydro-alcoholic solution of ferric chloride containing not less than 13.28% of the anhydrous salt corresponding to 4.6(.58)% of metallic iron.

Samples Passed.

Lab.No.	% Iron	U.S.P. strength.
F 5360	4.45	97.1
F 5362	4.76	103.9
F 5363	4.51	98.5
F 5364	4.60	100.4
F 5366	4.58	100.0
F 5368	4.50	98.2
F 5369	4.70	102.6
F 5370	4.58	100.0
F 5371	4.18	91.2
F 5372	4.64	102.1
F 5384	4.60	100.4
F 5385	4.60	100.4
F 5387	4.48	97.8
F 5389	4.38	95.6
F 5390	4.56	100.0
F 5391	4.45	97.1
F 5393	4.40	96.0
F 5394	4.72	103.0
F 5396	4.53	98.9
F 5397	4.67	101.9
F 5492	4.40	96.0
F 5493	4.32	94.3
F 5494	4.38	95.6
F 5495	4.80	104.8
F 5496	4.38	95.6
F 5497	4.28	93.4
F 5498	4.24	92.6
F 5499	4.42	96.5
F 5500	4.15	90.7
F 5501	4.45	97.1
F 5502	4.20	91.7
F 5505	4.25	92.8
F 5508	4.48	97.8
F 5513	4.02	89.95
F 5515	4.67	101.9
F 5572	4.50	98.2
F 5573	4.97	108.5
F 5575	4.67	101.9
F 5576	4.75	103.7
F 5579	4.95	108.0
F 5580	4.45	97.1
F 5582	4.58	100.0
F 5583	4.33	94.5
F 5584	4.16	90.8
F 5585	4.25	92.8
F 5589	4.97	108.5
F 5590	4.40	96.0
F 5591	4.30	93.9
F 5594	4.13	90.1
F 5595	4.82	105.2
F 5598	4.45	97.1
F 5758	4.23	92.4
F 5759	4.35	95.0
F 5760	4.50	98.2
F 5761	4.53	98.9
F 5763	4.95	108.0
F 5764	5.07	110.0
F 5766	4.33	94.5
F 5767	4.80	105.0
F 5377	4.76	103.9
F 5956	4.60	100.4
F 5957	4.60	100.4
F 5959	4.60	100.4
F 5503	4.25	92.8
F 5507	4.25	92.8
F 5509	4.70	102.6

Total samples passed, 66.0.

Samples Not Passed.

Lab.No.	% Iron	U.S.P. strength.	Lab.No.	% Iron	U.S.P. strength.
F 5358	3.24	70.7	F 5359	2.86	62.4
F 5361	2.65	57.8	F 5365	3.35	73.1
F 5367	2.90	63.3	F 5386	5.42	118.3
F 5388	3.88	84.7	F 5392	3.38	73.8
F 5395	3.58	78.1	F 5504	3.33	72.7
F 5506	3.88	84.7	F 5510	3.83	83.6
F 5511	3.10	67.7	F 5512	3.60	78.6
F 5514	3.15	68.8	F 5571	2.05	44.7
F 5574	5.43	118.5	F 5577	3.15	68.8
F 5578	5.18	113.1	F 5581	8.50	185.6
F 5586	3.28	71.6	F 5587	3.63	79.2
F 5592	3.15	68.8	F 5593	3.68	80.4
F 5596	3.83	83.6	F 5597	3.75	81.9
F 5762	3.83	83.6	F 5765	5.35	116.8

Total number samples not passed, 28.
Percentage of samples not passed, 29.8.

About 30% of samples of tincture of ferric chloride (tincture of iron) were classed as not passed, permitting a 10% margin plus or minus the U. S. P. strength on the metallic iron equivalent. In preparing the tincture by dilution of the solution of ferric chloride errors are likely to take place accounting for this number below standard. Another factor which might affect the percentage strength is the method of storing.

Fowler's Solution.

Fowler's solution should contain potassium arsenite corresponding in amount to one (1) per cent of arsenic trioxide.

Samples Passed

Lab.No.	% Arsenic trioxide	% U.S.P. strength
F 5746	.9240	92.40
F 5749	.9801	98.01
F 5750	.9009	90.09
F 5752	.9356	93.56
F 5753	.9504	95.04
F 5754	.9947	99.47
F 5757	.9306	93.06
F 5928	.9896	98.96
F 5929	.9797	97.97
F 5930	1.0190	101.90
F 5931	.9005	90.05
F 5932	.9500	95.00

Lab.No.	% Arsenic trioxide	% U.S.P. strength
F 5933	.9450	94.50
F 5934	.9648	96.48
F 5935	.9300	93.00
F 5936	.9846	98.46
F 5937	.9153	91.53
F 5938	.9797	97.97
F 5939	.9896	98.96
F 5940	.9648	96.48
F 5941	1.0440	104.40
F 5942	.9600	96.00
F 5943	1.0539	105.39
F 5944	.9203	92.03
F 5983	.9005	90.05
F 5985	9352	93.52

Total number samples passed, 26.

Samples Not Passed.

Lab.No.	% Arsenic trioxide	% U.S.P. strength
F 5636	1.1640	116.40
F 5637	.8805	88.05
F 5747	.3465	34.65
F 5748	.8662	86.62
F 5751	.7573	75.73
F 5755	1.9652	196.52
F 5756	.8910	89.10
F 5945	.7323	73.23
F 5946	.8708	87.08
F 5947	.8213	82.13
F 5948	7.6446	764.46
F 5949	.8906	89.06
F 5950	.8807	88.07

Total number samples not passed, 13.
Percentage of samples not passed, 33.3.

Using a 10% margin plus or minus U. S. P. strength one third of the samples analyzed were classed as not passed. Of 13 samples not passed, two samples are shown to be extremely high in arsenic trioxide equivalents. One sample showed approximately 7½ times the amount of potassium arsenite content which should be present. This solution was likely a concentrated solution intended for preparing Fowler's solution and was dispensed by error.

Dilute Hydrochloric Acid.

Dilute hydrochloric acid should contain 10% by weight of absolute hydrochloric acid (HC1) and 90% by weight of distilled water.

Samples Passed.

Lab.No.	%HC1	%U.S.P. Strength.	Lab.No.	%HC1	%U.S.P. Strength.
F 5321	10.5	105.00	F 5428	10.2	102.00
F 5523	10.94	109.40	F 5524	10.58	105.8
F 5633	8.97	89.70	F 5634	9.061	90.61
F 5769	9.76	97.60	F 5952	9.00	90.00

Total samples passed, 8.

Samples Not Passed.

Lab.No.	%HC1	%U.S.P. Strength.	Lab.No.	%HC1	%U.S.P. Strength.
F 5635	13.66	136.60	F 5768	13.128	131.28
F 5951	7.65	76.50	F 5958	8.72	87.20

Total number samples not passed, 4.

Percentage of samples not passed, 33.3.

Errors in calculation and weighing or improper storing must account for this number below or above standard. Dilute hydrochloric acid should be kept in ground-glass stoppered bottle. A 10% limit plus or minus U.S.P. strength has been allowed.

Liquefied Phenol (Carbolic Acid.)

The United States Pharmacopocia Eighth Division defines liquefied phenol as "a liquid composed of not less than 86.4% by weight of absolute phenol and about 13.6½ by weight of water."

Samples Passed.

Lab.No.	%HC1 Phenol.	%U.S.P. Strength.	Lab.No.	%HC1 Phenol.	%U.S.P. Strength.
F 5426	89.9	101.7	F 5736	90.8	105.1
F 5738	91.2	105.5	F 5739	84.0	97.2
F 5740	79.2	91.7	F 5741	82.7	95.7
F 5742	82.7	95.7	F 5743	90.97	105.3
F 5744	85.7	99.2	F 5745	87.00	100.7

Total number samples passed, 10.

Sample number F 5737 on analysis showed 72.9% absolute phenol by weight or 83.2% U.S.P. strength and was classed as not passed.

Phenol or carbolic acid is one of the many chemicals which advanced rapidly in price after the opening of the European war. This increased cost has caused the tendency to retail solutions below U.S.P. standard in order to maintain former prices. Retail merchants using this method to avoid argument with the public must ultimately be called to account by authorities in the enforcement of the State Food and Drug Act.

Spirit of Peppermint.

Spirit (essence) of peppermint should contain 10 cubic centimeters of oil of peppermint in each 100 cubic centimeters of the solution.

Samples Passed.

Lab.No.	% Peppermint oil.	%U.S.P. Strength.	Lab.No.	% Peppermint oil	%U.S.P. Strength
F 5429	9.0	90.0	F 5516	11.0	110.0
F 5517	10.4	104.0	F 5518	10.8	108.0
F 5519	10.0	100.0	F 5520	10.4	104.0
F 5521	9.0	90.0	F 5639	10.0	100.0
F 5770	10.3	103.0			

Total number samples passed, 9.

Samples Not Passed.

Lab. No.	% Peppermint oil.	% U.S.P. Strength
F 5522	4.8	48.0
F 5638	7.1	71.0

Total number samples not passed, 2.

Percentage of samples not passed, 18.2.

Camphor Liniment.

Camphor liniment (camphorated oil) should contain 20% by weight of camphor dissolved in cotton seed oil.

Samples Passed.

Lab. No.	% Camphor by Wt.	% U.S.P. Strength.
F 5626	19.05	95.20
F 5629	18.00	90.00
F 5630	19.15	95.70

Total number samples passed, 3.

Samples Not Passed.

Lab. No.	% Camphor by Wt.	% U.S.P. Strength.
F 5624	16.00	80.00
F 5625	6.32	31.60
F 5628	9.28	46.40
F 5629	11.81	59.00
F 5631	12.70	63.50
F 5632	15.98	79.90

Total number of samples not passed, 6.
Percentage of samples not passed, 66.6.

The common practice of heating after adding camphor to cotton seed oil in preparing this liniment, with the resulting loss of camphor by volatilization, probably accounts for this proportion below standard. Pharmacopocial directions must be closely adhered to in producing U.S.P. Linimentum Camphorae.

Miscellaneous.

	Total.	Number Not Passed.
Acid, boric	4	....
Sulphuric	1	1
Alcohol	3	2
Denatured	1	....
Ammonia water	1	1
Aromatic spirit of	1	....
Aspirin	1	....
Epsom salts	1	....
Extract of witch hazel	2	....
Fluid extract of belladonna	1	....
Nux Vomica	1	....
Powder	1	....
Prescription	1	....
Spirit of camphor	2	....
Nitre	1	....
Tincture of aconite	1	....
Belladonna	1	....
Nux Vomica	1	....
Totals	25	4

Percentage miscellaneous samples not passed, 16.0.